The Demonstration Effect of Hosting a Major Games: A Case Study of Figure Skating and the Vancouver 2010 Olympic Winter Games

Ryan Starr, B.S.M. (Honours)

Submitted in partial fulfillment of the requirements for the degree

Master of Arts in Applied Health Sciences

(Sport Management)

Faculty of Applied Health Sciences

Brock University, St. Catharines, ON

Abstract

Developed by Hindson, Gidlow, and Peebles (1994), the trickle-down effect and more specifically, the demonstration effect, are based on the idea that performances of a host nation's athletes will inspire the population to become active in sport. The Vancouver 2010 Olympic Winter Games presented an opportunity for Canadian sport organizations to promote sport participation. The purpose of this study was to determine if the demonstration effect occurred in Canada, and determine the reasons why or why not. The sport of figure skating was selected. Quantitative data were collected from Skate Canada on club membership rates from 2003 to 2013. Results showed small increases in participation, however there was little change following the Vancouver 2010 Olympic Winter Games. Qualitative data showed that already active sport participants became more active, following these Games. The findings demonstrate that the demonstration effect occurred, however only for a select group of individuals.

Keywords: Trickle-Down Effect, Demonstration Effect, Sport Participation, Figure Skating, Vancouver 2010 Olympic Winter Games, Sport Event Leveraging.

Acknowledgements

I would like to thank first and foremost, my supervisor, Dr. Lucie Thibault for bringing me in as her graduate student. Your knowledge and meticulousness from start to end of this project has helped me grow as a researcher, writer, and person. Thank you for everything you have done over the past few years, I am forever grateful.

I would also like to thank my advisory committee, Drs. Shannon Kerwin and Luke Potwarka. Shannon, all while raising lil' C, you have been incredible, wearing so many hats, from professor, to alumni day organizer, I cannot thank you enough. And Luke, for making all of your trips from Waterloo, if it wasn't for one question you asked at the 2013 SPMA Colloquium, I wouldn't have come up with this idea. Thank you for bringing your expertise to this project.

For all of the other SPMA professors and administrators, I may never have had a chance to thank you during my studies, but thanks to all of you! Charlene, I always called you my SPMA mom, as your motherly presence and hugs helped me get through my studies. Dr. Hyatt, our afternoon "meetings" which started only a few short months ago have been a great form of stress relief, as we hear more and more amazing stories. Chardo, there'll be a day that I finally beat you at tennis, golf, squash…something. I was going to even say cards, but I'm pretty sure you still beat Wigs and I at three handed euchre the very first time we played.

Speaking of Wigs, one of my best buds over the past two years, thanks for putting up with my constant fantasy sport conversations, trade proposals, and frustrations. The same goes to the rest of the boys and girls in the TA 'work' room. To the entire Brock Fantasy Keeper League, especially commissioner Bryan Smith, I am your current

champion, and the Cup will be in the hands of the Montreal Maroons for seasons to come.

For all of my friends and loved ones, new and old, who have helped me along the way, thank you. With all of our adventures which seemed to start and/or end at Sheehan's, that place will hold a special place in my heart forever. Simone, Mike, Andy, Kari, Grecs, the boys from Chetwood, all of the other Huskies, and my fellow SPMAs, I'm so happy we all had a chance to meet each other, and become family during our years at Brock.

And of course, I can't forget about my parents. Mom and Dad, you both have been amazing role models for me for my entire life. With the constant brainstorming, editing lessons, and encouragement, Dad, you have been such an important contributor to my life, in school, and outside. Mom, your love, assurance, and constant Tupperware care packages full of roast beef, pulled pork, and chili have literally gotten me through school and through my life. Thank you both so much, I cannot express my gratitude and how lucky I am to have you both as parents.

Thank you everyone.

Nomenclature

BBC – British Broadcasting Corporation

CCA – Canadian Curling Association

CSR – Corporate Social Responsibility

CSO – Community Sport Organization

IOC – International Olympic Committee

ISU – International Skating Union

LOCOG – London Organizing Committee of the Olympic and Paralympic Games

NSO – National Sport Organization

P/TSO – Provincial/Territorial Sport Organization

TDE – Trickle-Down Effect

TGCA – Thorncliffe Greenview Community Association

TGISC – Thorncliffe Greenview Ice Skating Club

Table of Contents

Chapter I: Introduction

"So that hundred may train their bodies, it needs fifty to practice sport. And in order for fifty to practice sport, twenty have to become specialized. In order to have twenty specialized, it means that five must be capable of outstanding peak performances." - *Pierre de Coubertin – Founder of the modern Olympic Games* (Hanstad & Skille, 2006, p. 10)

Pierre de Coubertin, founder of the modern Olympic Games, had a vision that, by hosting the Olympic Games, there would be an increase in the level of physical activity and sport participation. As demonstrated in the quotation above, in order for 100 to train their bodies, it results from five being capable of outstanding athletic performances. As athletes participate in the Olympic Games, as well as other high profile Major Games events, some believe that more people are likely to become active as to emulate the athletic accomplishments of their sport heroes (Grix & Carmichael, 2012; Hindson, Gidlow, & Peebles, 1994; Hogan & Norton, 2000). It was the hopes of de Coubertin that the sport accomplishments of the athletic elite would find their way to the general population and lead to physical activity and athleticism. Even in the early years of the modern Olympic Games, there was an emphasis on the societal good that holding these Games could have, trickling the Olympic ideals and values to the general population.

In recent years, the Olympic Games have become more extravagant. For example, during the Sochi 2014 Olympic and Paralympic Winter Games, over $50 billion was invested to host the event in Russia (Murray, 2014). In 2010, the Olympic and Paralympic Winter Games held in Vancouver, Canada, cost the host nation about $7 billion (Hume, 2013). With the ever increasing amount of fiscal resources invested into

hosting these Major Games, nations need to see a return beyond the few weeks of athletic competition. The return needs to trickle down and effectively benefit the host nation and the host city in order to justify spending these levels of resources for a relatively short competition.

As noted by Potwarka and McCarville (2010), "public sector investment in hosting the Olympic Games is often justified in terms of trickle-down effects. Such effects refer to the event's capacity to increase sport and/or physical activity levels within host populations" (p. 179). This justification is provided in order to approve spending billions of dollars on these events, in that, the societal impact following the Games, will lead to the promotion of healthy and active living among the general population. Through hosting these Major Games and the visibility that they provide the host nation, there is a belief that this will lead to increased physical activity and sport participation among the population (Grix & Carmichael, 2012; Hindson et al., 1994; Hogan & Norton, 2000).

Hindson et al. (1994) propose the Trickle-Down Effect (TDE). This effect is based on the concept that the performances of a nation's athletes will inspire the population to become more active in sport. According to Hindson et al. (1994),

> …it is assumed that the high profile of successful Olympic athletes will have a 'trickle-down' effect and will result in increasing numbers of people taking up these sports, increased membership of clubs in the respective sports and higher performance aspirations on the part of club members. (p. 17)

As Hindson et al. (1994) state, however, the TDE is simply an assumption. Potwarka and McCarville (2010) disclaim the concept of a TDE in that many of these claims are purely anecdotal and there is no evidence to support the idea of athletic achievements by high

performance athletes stimulating physical activity among the population of the host nation.

As physical activity and sport participation levels are falling to an all-time low in Canada (Canadian Heritage, 2013), it is becoming more important to find ways in which to promote healthy active living. Using major sport events as catalysts to influence and motivate people to become more physically active, is one strategy that can be used by national, provincial, and local governments and sport organizations. These public and nonprofit sport organizations can leverage these types of events to motivate people to become physically active. Since these events do not take place on a frequent basis, public and nonprofit sport organizations have a small window of opportunity to leverage the possibilities. And if missed, these organizations may fail to embrace the opportunity to enhance participation among the population. The next section will discuss a relevant event which provided the opportunity to motivate the host population to become active.

Vancouver 2010 Olympic Winter Games

One event that could have acted as a catalyst to promote sport participation, if leveraged properly, was the Vancouver 2010 Olympic Winter Games[1]. The 21st Olympic Winter Games were held in the Greater Vancouver Area and the Resort Municipality of Whistler, British Columbia, for a two week period, from February 12 to February 28, 2010 (Canadian Olympic Committee, 2013). A total of 2,566 Olympic athletes from 82 nations participated in 86 events at these Games (Canadian Olympic Committee, 2013).

[1] For the purpose of this research, only the Vancouver 2010 Olympic Winter Games will be studied. It is understood that the Paralympic Games are a sport mega-event and is held in the same location as the Olympic Games; however, one of the main principles of the TDE is that it relies on visibility. Because the Olympic Games receive far more attention and this visibility far outweighs that of the Paralympic Games, this research is better suited for focus on Olympic studies.

There were 202 Canadian competitors who took home 26 total medals: 14 gold, 7 silver, and 5 bronze (Canadian Olympic Committee, 2013).

Sport Participation and Physical Activity in Canada

According to Canadian Heritage (2013), as of 2010, sport participation in Canadians aged 15 and older had declined by 17% in the past 18 years. Furthermore, only one-third of Canadian men and one-sixth of Canadian women regularly participate in sport (Canadian Heritage, 2013). This represents a major issue, because with the obesity problem that Canada faces (Public Health Agency of Canada, 2011), decreasing levels of physical activity will likely result in increased obesity rates.

According to the Public Health Agency of Canada (2011), over one in four adult Canadians are considered to be obese. In terms of children, aged 6 to 17, 8.6% are considered obese. In just under 30 years, from 1981, to the time of the report, "measured obesity roughly doubled among both males and females in most age groups in the adult and youth categories" (Public Health Agency of Canada, 2011, p. 1). Furthermore, the Public Health Agency of Canada (2011) states "research also suggests a trend toward increased adiposity and decreased fitness for children, youth and adults" (p. 1).

In addition to the physical health benefits when sport participation and physical activity increases, there are economic benefits for which the country can take advantage. According to the Public Health Agency of Canada (2011), obesity costs the Canadian economy approximately $7.1 billion in 2008. These costs can be attributed to 18 chronic diseases most commonly linked to obesity that result in hospital costs, lost work days, and premature deaths. These costs further demonstrate the importance of healthy and

active living, not just for the wellness of the population, but for the Canadian economy as well.

There is an issue in Canada that can be solved, or at least minimized, through increased physical activity. Encouraging people to be physically active can be difficult, especially if there is no catalyst to motivate the nation to become active. One such catalyst, the Vancouver 2010 Olympic Winter Games, had the potential to increase levels of physical activity in Canada, however, the impact of this event on Canadians' participation in physical activity and sport has not been the object of prior research.

As will be further discussed in Chapter III, there is an explicit link between sport participation and physical activity. In order to participate in sport, one must exert a physical effort, in an attempt to achieve the goals of the sport (Scheerder, Vanreusel, & Taks, 2005). While not all physical activity can be categorized as sport, for example lifting boxes while moving houses, running up stairs, or gardening, which all require physical exertion; sport can be linked to physical activity. Therefore, in trying to increase the physical activity levels of a nation, thereby improving cognitive and physical wellbeing, participating in sport is an important means of achieving such a goal.

There are several terms which can be used to describe sport for the general population. Some examples include grassroots sport participation, mass sport, and sport for all. Throughout this study, the term 'mass sport' will be used to describe sport for the general population.

Research Purpose

The purpose of this study is to examine what effects hosting the Vancouver 2010 Olympic Winter Games had on figure skating participation in Canada. Canadian children

are playing fewer sports every year, as evident from declining participation statistics (Canadian Heritage, 2013). The most recent study, however, was completed in 2010, the year of the Vancouver Olympic Winter Games. This Major Games event has had the potential to inspire a nation to become active and participate in more sports.

The purpose of this study is to uncover what has happened in Canada, following the Vancouver 2010 Olympic Winter Games, in regards to levels of sport participation among Canadians. The results of the study will be used to examine the major costs of hosting a Major Games event, such as the Vancouver 2010 Olympic Winter Games, and assess whether or not there is an effect on participation rates and explain why this is the case. This study will analyze the after effects of hosting the Vancouver 2010 Olympic Winter Games on Canada in terms of sport participation.

Research Questions

Based on the research gap in TDE and Canadian physical activity and sport participation research, two research questions were developed for this study. These questions are:

1. What effect(s) did hosting the Vancouver 2010 Olympic Winter Games have on figure skating participation in Canada?
2. If and where sport participation rates have increased, were these Games a factor in stimulating this participation?

These questions will be answered through mixed research methods, quantitatively analyzing nationwide sport participation data within the sport of figure skating as well as qualitatively studying the potential TDE on specific community figure skating clubs. This will be further discussed in Chapter IV – Research Methods. Through this research,

these data showcase the effect, if any, that hosting the 21st Olympic Winter Games had on mass sport participation in the host nation of Canada. Conclusions will be generated from the large scale, nationwide statistics, as well as the small scale, local CSO element of the supposed TDE phenomena.

Hypothesis

Based on the findings of other studies on this subject, there is little evidence to support a TDE in a host nation following a Major Games (Coalter, 2007; De Bosscher, Sotiriadou, & van Bottenburg, 2013; Pringle, 2001; Weed et al., 2012). Therefore, based on the findings of previous TDE studies for other Major Games, the hypothesis for this study is that there will be no TDE in the form of sustained sport participation in Canada, following the Vancouver 2010 Olympic Winter Games. I hypothesize that there will be fluctuations in sport participation rates in years leading up to and following the Vancouver 2010 Olympic Winter Games. In years leading up to the Games, it is expected that sport participation will increase, reaching a peak in 2010, while there will be a swift decline downwards after the Games, once interest has subsided. Due to the lack of empirical studies conducted on the subject of the participation TDE, stemming from the Vancouver 2010 Olympic Winter Games, this research makes an important contribution to understanding the connection between hosting Major Games' events and sport participation among the general population.

Value of the Study

The value of this research will be two fold in that it has both academic and practical applications. This will be discussed throughout the proposal, however, because of the lack of research examining the sport participation benefits of hosting the Vancouver

Olympic Winter Games; this study will address a gap in the research literature. In terms of the practical element, this study can be used to inform managers of public and non-profit sport organizations that new strategies may be needed to promote physical and healthy active living in order to increase sport participation in their clubs. This will be further discussed in the further chapters, with an explanation in Chapter VI.

Thesis Outline

This study will summarize and review pertinent TDE literature related to this specific topic of increased sport participation following the hosting of Major Games, while answering the research questions. Chapter II will discuss the conceptual framework that will be used for the study. Chapter III will address previous TDE studies completed in different countries, analyzing different Major Games and the developed trends and themes. Chapter IV will present the proposed methods that will be used to achieve the purpose of the study and answer the research questions. Chapter V will present the quantitative statistics, while Chapter VI will discuss the qualitative data collected. Finally, Chapter VII will conclude the study and make recommendations.

Chapter II: Review of Literature – Conceptual Framework

The following two chapters of this thesis provide a review of relevant literature related to this study. As discussed in Chapter I, the main purpose of this study is to examine the Trickle-Down Effect (TDE) of the Vancouver 2010 Olympic Winter Games and its impact on the levels of sport participation in Canada. The conceptual framework, TDE, and its origins will be covered in this chapter, while the next chapter will examine previous studies related to the TDE, sport participation, and legacies of Major Games in other respective host nations. It is important at this time to introduce and explain the conceptual framework that has shaped this study.

Trickle-Down Effect

The concept of TDE has its original roots in marketing, economics, and social behaviour. The idea behind the TDE is that the cultures, ideas, products, or wealth of the elite will become so great that the excess will flow down to the lower classes (Simmel, 1904). Through avenues such as imitation and economic stimulation, the lower class population is able to benefit from the actions of the elite, through which the benefits trickle down from the 'top' of society to the 'bottom.'

Since the early 1900s the idea of the TDE has been evident in society. From measuring the way in which fashion of the higher class becomes marketed to, and imitated by, the lower class (Simmel, 1904; Kolk, van Dolen & Vock, 2010), to the idea of social behaviour influencing infrastructure based on trends of the population (Gaboriau, 1991), to the idea of money trickling down from the rich to the poor population (Aghion & Bolton, 1997), the TDE is evident in many elements of both academic and practical work. It is the general notion that some wealth (not necessarily

financial) will first benefit the elite and then find its way to the general population. With this notion in place, the population is able to emulate its elite and eventually have those prestigious commodities or ideals become some part of societal norms. The following will explain the TDE in each of these different societal roots.

Trickle-Down Effect - Marketing

Originally conceptualized in 1904, Simmel describes the idea of TDE in terms of fashion:

> Social forms, apparel, aesthetic judgement, the whole style of human expression, are constantly transformed by fashion, in such a way, however, that fashion – i.e., the latest fashion – in all these things affects only the upper classes. … Naturally the lower classes look and strive towards the upper, and they encounter the least resistance in those fields which are subject to the whims of fashion; for it is here that mere external imitation is most readily applied. (pp. 5-6)

This demonstrates how something to which only the elite may have access will eventually trickle down to the general population, as they will seek to imitate leaders in society. In this example of fashion, as the lower class seeks to move up and become part of the upper class, the first step is emulation (Simmel, 1904).

The TDE is a top-down approach as it considers taking advantage of the ideas and commodities to which only the elite have access (Kolk et al., 2010). It then becomes emulated by the lower class as they want to achieve the same status (Kolk et al., 2010). This strategy is used by marketers in order to sell the idea of living as part of this upper class, in the form of imitation (Simmel, 1904). Therefore, to consider the TDE as a

marketing approach is to think of a top-down platform which uses the basis of desire to sell these goods and ideas.

Outside of fashion but still within a marketing example, an organization may wish to benefit from different corporate social responsibility (CSR) initiatives in the form of a TDE (Kolk et al., 2010). For example, if an organization were to partake in a "partnership initiative to create more jobs in a specific region, the company may benefit from increased reputation, and in turn commit more resources to a nonprofit partner (i.e. a trickle-down effect)" (Kolk et al., 2010, p. 127). As the organization initiates this strategy of job creation, the benefits of this program trickle down to the surrounding area in the form of decreased unemployment numbers (Kolk et al., 2010). The organization would then benefit from its increased reputation, therefore utilizing the TDE of its CSR initiative to better its image in the surrounding community. Again, this TDE example represents how the concept is a top-down approach in that it starts with the elite (i.e., the hiring organization) and then trickles down to the general population (i.e., those who are seeking to be hired as a part of this community's job stimulation program).

Trickle-Down Effect – Social Behaviour

In terms of the connection between social behaviour and the TDE, Gaboriau (1991) describes the first age of the bicycle as one in which the use of bicycles was limited to only the social elite as evidence of status. Then, as the bourgeois bicycle gave way to the popular bicycle (Gaboriau, 1991), more people were able to afford these bicycles and therefore the status of the elite was altered since bicycles became commonplace. Finally, in the 1980s, the ecological bicycle (Gaboriau, 1991) became most apparent and the elite connotation related to bicycle ownership was no longer applicable.

Gaboriau (1991) explains that as a result of the social behaviour in terms of the increased popularity and therefore the purchase of more bicycles, street designs have now become more bicycle friendly leading to an increase in bicycle pathways and an increased cycling infrastructure. Based upon this social behaviour change, effects are evident throughout the country of France in this infrastructure alteration. This is the result of the TDE of the elite first having these bicycles and using them as an element of class distinction. The use of bicycles has trickled down to the general population in that, in the past, members of the lower class sought to emulate the upper class (Gaboriau, 1991).

Another interesting perspective in Gaboriau's study is the timeline of the TDE which took place in France. Starting in the early 19th century, these bicycles were used by the elite as an avenue to assert distinction over the lower classes (Gaboriau, 1991). Even over this length of time, between the early 19th century and the publication date of the paper, the TDE of these bicycles still plays a role in the daily activities in France. Each different category of bicycle, being the bourgeois bicycle, then the popular bicycle, and finally the ecological bicycle had an effect on the next, and finally the impending infrastructure influences.

This social behaviour of emulating the higher class then resulted in further TDEs, ultimately leading to a change in infrastructure. This is the influence of the TDE in terms of social behaviour and the idea that each action has a resulting reaction. The TDE is a top-down approach influenced by the behaviours and social leaders in society.

Trickle-Down Effect – Economics

The TDE also has roots in economics. There have been many studies which examine TDE economics in both positive and negative lights (Adelman, 1975; Aghion &

Bolton, 1997; Arndt, 1983; Basu & Mallick, 2008; Holt & Greenwood, 2012; Norton, 2002; Sowell, 2012). These studies however state that the common belief is that the more wealth the elite possess, the more will trickle down to the lower class (Adelman, 1975; Aghion & Bolton, 1997; Arndt, 1983; Basu & Mallick, 2008; Holt & Greenwood, 2012; Norton, 2002; Sowell, 2012). Not all are in support of this idea; however this is the general concept of the TDE as it relates to economics (Adelman, 1975; Aghion & Bolton, 1997; Arndt, 1983; Basu & Mallick, 2008; Holt & Greenwood, 2012; Norton, 2002; Sowell, 2012). Similar to the previous two sections on marketing and social behaviour, TDE in the context of general economics starts with the elite of society and then finds its way down to members of the lower class.

According to Arndt (1983) and supported by Gedam (1989), the term "trickle-down effect" in an economic context was first identified by Nehru (1933). In discussing the effect that England's abuse had on India, Nehru (1933) stated "the exploitation of India and other countries brought so much wealth to England that some of it trickled down to the working class and their standard of living rose" (as cited in Arndt, 1983, p. 2). This explanation of the TDE has become the defining origin of the concept. In Nehru's study, the TDE started with the wealthy English and worked its way down to the general population, in this case, India.

According to Aghion and Bolton (1997), when the economy is strong, "wealth does trickle-down from the rich to the poor and leads to a unique steady-state distribution of wealth" (p. 152). This leads to a raised standard of living which therefore lowers the rate of poverty (Dollar & Kraay, 2002; Fan, Hazell, & Thorat, 2000; Mellor, 1999; Ravallion & Datt, 2002). Many authors identified above do not necessarily agree with this trickle-

down idea, or believe that it is in fact a myth (Adelman, 1975; Arndt, 1983; Holt & Greenwood, 2012; Norton, 2002); however the authors do note that this is the general idea behind the TDE.

This economic view is a common example of the TDE and the positive impacts these effects provide to members of the lower classes as the 'pool of wealth' overflows to the lower class. It also brings another perspective in that scholars have found that no TDE exists in certain economic situations (Adelman, 1975; Arndt, 1983; Norton, 2002; Holt & Greenwood, 2012). While in the previous two sections, the TDEs have been a result from proactive actions, albeit in an indirect way, Adelman (1975), Arndt (1983), Norton (2002), and Holt and Greenwood (2012) have disproven evidence of the TDE in economics. Therefore, TDEs are not always guaranteed and therefore may not be evident in the potential change in mass sport participation rates resulting from the Vancouver 2010 Olympic Winter Games.

Trickle-Down Effect in Sport

In the previous section, examples were used to showcase the existence of the TDE in several academic areas of study, including marketing, social behaviour as well as economics. In addition to understanding the TDE in marketing, social behaviour, and economics, it is important to examine the application of the TDE in the context of sport. For this study, TDE will be examined in connection with the contribution elite sport seemingly provides to mass sport participation. The following will explain how TDE has been applied to sport.

Hindson, et al. (1994) used the term "trickle-down effect" for the first time in sport-based literature. These authors described TDE as a demonstration effect that would

inspire the general population to become more active (Hindson et al., 1994). This is based on TDE, rooted in the previously discussed areas of study, as well as society's inherent desire to imitate the elite, in this context, elite athletes (Hindson et al., 1994). Upon review of Hindson et al.'s (1994) explanation of TDE, there is not necessarily a succinct definition. Based on studies undertaken on TDE in a number of countries (Boardley, 2013; Coalter, 2004; Hogan & Norton, 2000; Potwarka & McCarville, 2010), Hindson et al.'s (1994) findings are consistently cited in reference to an explanation of the term.

According to Potwarka and McCarville (2010), "our understanding of trickle-down effects is not underpinned by any explanatory theory or model of health behaviour change" (p. 179). Furthermore, Potwarka and McCarville (2010) "call for more substantive methodologies intended to establish the actual 'reach' of Major Games events' in terms of changing host populations' activity levels" (p. 179). As Potwarka and McCarville (2010) demonstrate, TDE, at least in terms of its relation to sport participation, is not necessarily underpinned in conceptual theory. This is further reinforced by De Bosscher et al. (2013) as they also found that "the examination of the relationship between elite and mass participation is not straightforward as the trickle-down effect is difficult to isolate in empirical studies" (p. 321). Pawlowski, Downward, and Rasciute (2014), also explain that "the evidence base on these trickle-down effects has been argued to be of low quality stemming from poor methodology" (p. 122). When trying to understand how TDE works, there is no step by step process to explain how TDE is initiated, takes place, and ultimately affects those who may be subjected to it.

The definition of the TDE that will explain the sport participation legacy in this study comes from Frawley, Veal, Cashman, and Toohey (2009). Frawley et al. (2009) define TDE as "the process by which mass sports participation is stimulated by public exposure to elite sport" (p. 3). This definition will be used to explain the TDE's conceptual framework as it applies to sport and Major Games and their impact on sport participation in the host nation.

Furthermore, there are elements to TDE that are discussed throughout relevant literature (Boardley, 2013; De Bosscher et al., 2013; Hindson et al., 1994; Weed, 2009). This includes the aforementioned demonstration effect, as well as the festival effect and the sport pyramid metaphor, which will be further discussed to explain how elite sport can inspire and motivate the general population to become active in their everyday lives. In the following pages, the elements of TDE will be presented.

Demonstration Effect

The demonstration effect is effectively sport's version of the TDE. The TDE and the demonstration effect are both similar in that both terms describe enhanced sport participation stemming from the hosting of a Major Games. Hindson et al. (1994) explain the demonstration effect as the driving force to inspiring the general population to become active. The demonstration effect describes the imitation of elite athletes by the general population which results in increased participation levels throughout the host nation. This is the general premise of the demonstration effect; however, as will be further discussed in the next section, this is not always the case.

The demonstration effect concept is defined by Weed (2009) as "a process by which people are inspired by elite sport, sports people or sports events to participate

themselves" (p. 4). This definition complements Hindson et al.'s (1994) explanation of the TDE; however, this concept is merely an assumption. While the hosting of these Major Games can lead to increased exposure of the featured sport(s), this does not guarantee stimulated participation throughout the host nation (Boardley, 2013; Hogan & Norton, 2000; Mansfield, Weed, & Dowse, 2010; Potwarka & McCarville, 2010; Pringle, 2001). One of the major issues in converting this exposure into participation is the inability to capture a nation's interest and intent to participate as well as getting the population to start being more physically active (Bauman, Armstrong, & Davies, 2003).

In order for these Major Games to inspire the masses to become active, National Sport Organizations (NSOs), Provincial/Territorial Sport Organizations (P/TSOs), and Community Sport Organizations (CSOs) must capitalize on the exposure of the sports and the inspirational stories connected to the success of host nation's athletes (Boardley, 2013; Cashman, 2006; Coalter, 2004; Coalter, 2007; De Bosscher et al. 2013; Frawley & Cush, 2011; Potwarka & McCarville, 2010). Given the lack of understanding and lack of proven theoretical evidence in the TDE and demonstration effect (Potwarka & McCarville, 2010), it is difficult for NSOs, P/TSOs, and CSOs to use these frameworks to help them leverage the Games. It is also an issue about who to target, as the demonstration effect does not necessarily affect a country's entire population (Mansfield et al., 2010).

According to Mansfield et al. (2010),

> …the Demonstration Effect process can be linked to event hosting and/or performance successes and is most effective where people feel locally connected to the bigger event. It seeks to stimulate participation using the Olympic and

> Paralympic Games to encourage aspirational and nostalgic emotions relating to sport participation. (p.420)

Mansfield et al. (2010) explain that the demonstration effect is only effective with people who are already or have been active in sport in the past, and "have positive associations or emotions towards sport" (p. 420). Furthermore, Mansfield et al. (2010) found that there are three potential outcomes of the demonstration effect:

- (1) to encourage former participants to re-engage with sport;
- (2) to encourage infrequent participants to participate more regularly; and
- (3) to encourage current participants to try new sports and activities (to refresh their participation and prevent lapses or drop out). (p. 420)

According to Mansfield et al. (2010), "for sport-type activities the leveragable [sic] process is the *Demonstration Effect* in which sporting motivations, values and competencies combine with the values of the Olympic and Paralympic Games and are used to inspire sport participation" (p. 420). Mansfield et al. (2010) found that the demonstration effect does not have an effect on those who would be classified as sedentary individuals, that is people who are inactive and disinterested in physical activity and sport (Mansfield et al., 2010). In order to convince these people to become physically active, Mansfield et al. (2010) discuss another process known as the 'festival effect.'

Festival Effect

According to Mansfield et al. (2010), "the Festival Effect process seeks to create in people a 'desire to participate in some way', and this 'desire is stronger if the event [a Major Games] is perceived to be bigger and beyond sport' (p. 421). The festival effect

process is suited better for those who are not active, or even have a "negative attitude towards sport and formal physical activities" (Mansfield et al., 2010, p. 420). For those who have no inherent experience in sport or negative perceptions regarding physical activity, this process should be the strategy used by NSOs, P/TSOs, and CSOs to leverage the Games and get the population physically active (Mansfield et al., 2010). The authors categorize physical activity and sport differently, and believe that in order to promote physical activity to the population; the festival effect must be used as leverage. Mansfield et al. (2010) uncovered two potential outcomes of the festival effect:

- (1) those who are disinterested in sport can be encouraged to contemplate engaging in activity linked to values other than sporting ones that are important to them; and
- (2) those who have begun to contemplate becoming more active may be prompted to take-up activity especially where it takes place incidentally as part of other pursuits which people are already interested in and enthusiastic about. (p. 421)

Since the basis of the festival effect is rooted in building a sense of community (Mansfield et al., 2010), using this leveraging strategy requires NSOs, P/TSOs, and CSOs to take advantage of the (assumed) stimulated national pride generated during and following the Games (Pricewaterhouse Coopers, 2009). The purpose of using a festival effect strategy is to "create in people a 'desire, if not urge to participate in some way', and this 'desire is stronger if the event is perceived to be bigger than and beyond sport'" (Mansfield et al., 2010, p. 421). Therefore, seeking to stimulate physical activity and sport participation while using the festival effect, it is important to understand that these

Major Games are not just showcases of sport. They demonstrate a host nation's culture, lifestyles, and ways of life (Pricewaterhouse Coopers, 2009).

While local, CSOs and events may be regarded as just an avenue to be active; a Major Games like the Olympic Games can be seen to be bigger than just sport. A review undertaken by Pricewaterhouse Coopers (2009), focused on predicting the impact of the Vancouver 2010 Olympic Winter Games in the province of British Columbia concluded that there would be significant positive impacts in the areas of Sport Development, Tourism, Environmental Sustainability, Social Development, Arts and Culture, Economic Development, Employment, and Business Development. In this review, a Major Games such as the Olympic Games ultimately affects almost every aspect of living within the host city and can even extend to the host nation. This is where the festival effect can be most effective, in seeking to harness the interest that these Major Games have stimulated in people who have a disinterest in sport, as it will lead them to participate in community physical activity initiatives.

According to Grix and Carmichael (2012), when determining the difference between physical activity and sport, there is a "lack of clarity that in government elite-driven discourse does not always clearly distinguish between 'physical activity' or a more formal 'sport'" (p. 84). This is where it becomes difficult to determine what approach should be taken and in what form sport organizations should leverage the Games – by using the demonstration effect process or a festival effect process. In order to further stimulate the national pride generated from the Games, and promote increased levels of physical activity, using the festival effect "builds a sense of community involvement in the occasion to promote celebration of the Olympic and Paralympic Festival" (Mansfield

et al., 2010, p. 420). This type of festival is one which celebrates an event bigger than sport itself, in that the Games represent and have the ability to empower a nation.

Sport Pyramid

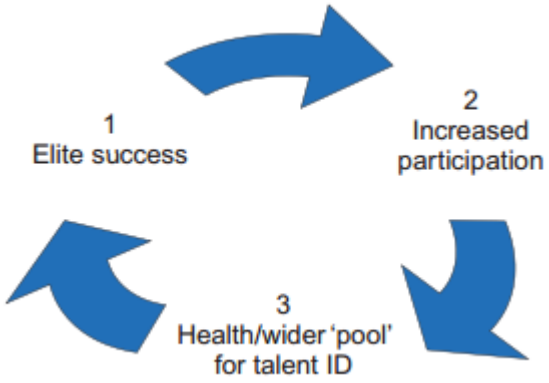
Closer to the original idea of the TDE, with no differentiation between organized sport and physical activity, comes the idea of the sport pyramid metaphor. De Bosscher et al. (2013), explains the idea of the sport pyramid as the foundation of elite level sports starts with mass sport and therefore the two are mutually dependent. According to De Bosscher et al. (2013),

> …in many sports, a large base of mass participation numbers is believed to provide a positive breeding ground for elite sport. In turn, elite sport is regarded as attracting young children to sports because of the inspiration provided by the elite athletes and the attention given to international sporting success. This is the origin of the often used but rarely questioned sport-pyramid metaphor. (p. 320)

According to Grix and Carmichael (2012), the sport pyramid metaphor simply states that "thousands of people practising sport at the base lead to a few Olympic champions and, at the same time the existence of champion role models encourages thousands of people to take up some form of sport" (p. 76). This is consistent with the TDE in that the performances by the elite will develop role models for the young to emulate and ultimately inspire a population to become more active. As outlined in Figure 1, Grix and Carmichael (2012) show that there is a never-ending 'virtuous cycle' in sport. As elite success, is evident, it is believed that it results in increased participation, which then provides a deeper pool for talent to select the elite, which starts the cycle. De Bosscher et al.'s (2013) sport pyramid metaphor is developed in a similar structure to this

cycle, as the foundation for elite athlete development is built upon mass sport participation.

Figure 1 - The virtuous cycle of sport



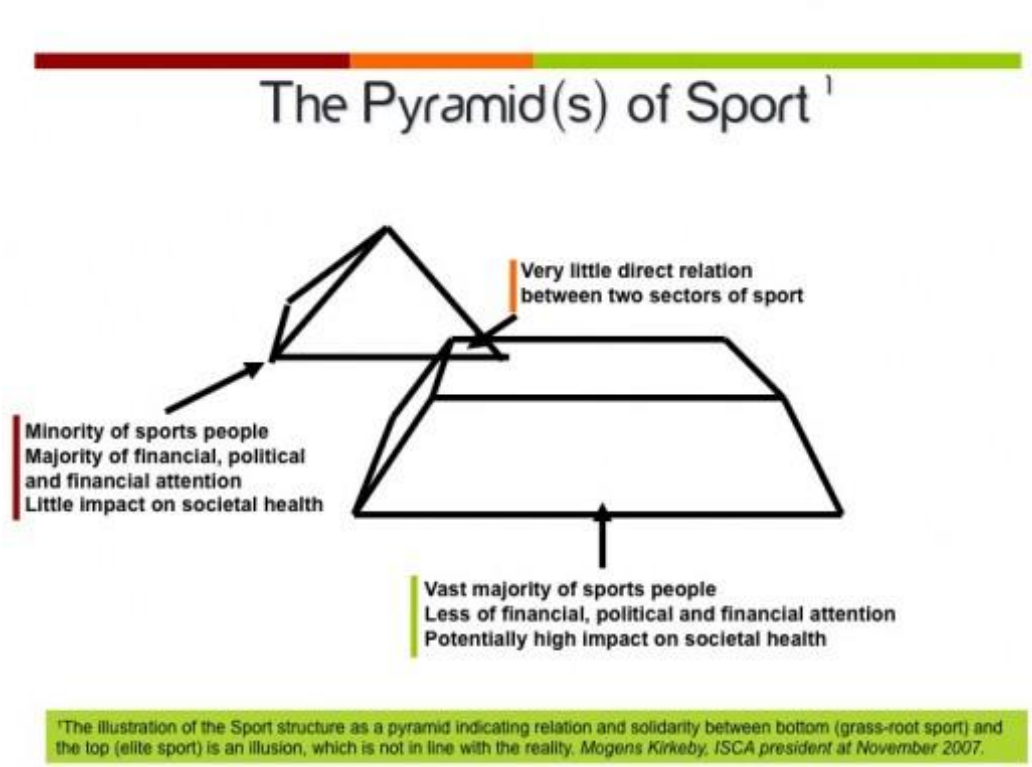
Grix, J. & Carmichael, F. (2012). Why do governments invest in elite sport? A polemic. *International Journal of Sport Policy and Politics, 4* (1), 73-90.

In line with the TDE, demonstration and festival effects, the virtuous cycle of sport goes unproven (De Bosscher et al., 2013). According to van Bottenburg (2003) and supported by, Green (2005), Sotiriadou and Shilbury (2009), Grix and Carmichael (2012), and De Bosscher et al. (2013), there is limited literature justifying the legitimacy of the sport pyramid and the TDE. De Bosscher et al. (2013) claim that the reason behind this lack of legitimacy is the absence of empirical studies showing a correlation of increased sport participation and Major Games hosting as well as an overabundance of anecdotal evidence.

As evident in Figure 2, Kirkeby (2009) illustrates the claims made by van Bottenburg (2003), Green (2005), Sotiriadou and Shilbury (2009), Grix and Carmichael (2012), and De Bosscher et al. (2013) in that there are no true data to empirically support the sport pyramid and therefore the TDE. As shown in the figure, the majority of

financial and political attention is focused on a few athletes, while the general population receives less financial and political attention. For the sport elite, there is little impact on societal health, resulting from their actions, while policies directed towards the mass sport participation can have a potentially high impact on societal health. Based on this debunking of the sport pyramid, Kirkeby (2009) argues that there is only a fraction of direct relation between these two areas of sport and that there is no true sport pyramid/TDE.

Figure 2 - The pyramid of sport



Kirkeby, M. (2009). The real challenges and conflicts between grass-roots and top sport. *Presented at Play the Game, 8-12 June, 2009, Coventry, UK*. De-construction of the sport pyramid model.

In the next section, a review of literature of past studies which have examined sport pyramid/TDE and increased mass sport participation resulting from hosting a Major Games in the host nation will be presented. As a result, the next section is designed to discuss three elements and major themes found throughout the TDE literature – the TDE, sport participation, and legacy. The chapter will then explain these studies and identify gaps in the literature that can be addressed in this study.

Chapter III: Review of Literature – Trickle-Down Effect Studies

While the previous section reviewed literature in relation to the conceptual framework of the study, the following segment will discuss previous research using the trickle-down effect (TDE) in the context of sport and physical activity. These studies have been completed in different areas of the world, for different events, at different times, related to sport participation and physical activity. Three main themes were clearly evident throughout the review of literature. These themes are the TDE including the demonstration effect and festival effect, sport participation, and sport Major Games' legacy. Each theme plays an important role in understanding how the TDE has been studied previously as well as what strategies are being used to leverage Major Games in order to motivate the host population to become more physically active.

Trickle-Down Effect

Throughout the studies completed in the area of the TDE, previous literature presents one resounding theme. This theme is that there is an abundance of anecdotal claims that hosting will in turn motivate the population to become more physically active; however there is a clear lack of empirical evidence (De Bosscher et al., 2013; Grix & Carmichael, 2012; Pawlowski et al., 2013; Potwarka & McCarville, 2010). Due to the lack of empirical data, as well as the lack of true understanding of the TDE, as discussed in the previous section, there is a lack of consistency in these studies' findings.

As well, different types of methodologies in terms of quantitative- or qualitative-based studies are featured. For example, De Bosscher et al. (2013) use a correlation coefficient in their examination of the relationship between elite success and mass sport participation in the region of Flanders, Belgium, while Hindson et al. (1994) use a case

study method to examine the TDE of the Barcelona 1992 Olympic Games and its effect on mass sport participation rates in New Zealand. Potwarka and McCarville (2010) identify five questions guiding their study of the TDE in the host nation following a Major Games. These questions are:

1. Who (i.e., which members of a population) will alter their activity levels in response to the Olympics?
2. What activities will the Olympics influence/alter among host residents?
3. Where (i.e., in which geographic regions) will the Olympics influence host residents' participation rates?
4. When (i.e., at what time either before, during, or after the event) will the Olympics influence host residents' participation rate?
5. Why might the Olympics make host residents more active? (p. 182)

The following section will build upon Potwarka and McCarville's (2010) empirical answers to these questions, using other relevant studies and literature which has been completed in different geographical areas in the world as well as practical examples.

1. Who will alter their activity levels in response to the Olympic Games?

According to Potwarka and McCarville (2010), in many of the studies undertaken on the TDE, they are "rarely organized into any socio-demographic or behavioural characteristics of host residents" (pp. 182-183). Given the lack of consistency in studies, it becomes difficult to develop a strategy and method to compare the effect of hosting Olympic Games on different types of the population. Throughout the literature, there was little mention of specific effects on types of people (e.g., age, gender, race, socio-economic status). Although, as previously discussed, the common claim is that Olympic

Games can motivate an entire population using both the demonstration effect and the festival effect (Mansfield et al., 2010).

As previously discussed, the demonstration effect and festival effect are believed to motivate the population to become more physically active in different ways. The demonstration effect affects those who are/have been active in the past in motivating them to participate in sport, while the festival effect seeks to inspire those who are inactive/sedentary or have a disinterest in sport (Mansfield et al., 2010). This is where measurements can be made to determine who will alter their activity levels in response to the Olympic Games. One classification can be considered to be those who are/have been active in the past (those who may be subject to the demonstration effect) and the other can be those who are considered inactive/sedentary (those who may be subject to the festival effect).

In past studies, the resounding findings have been that the TDE and the corresponding demonstration effect and festival effect have had the most impact on those who are already active in sport (Coalter, 2004; De Bosscher et al., 2013; Weed, 2009). While many have found that there is no significant increase in participation rates due to the TDE phenomena (Frawley & Cush, 2011; Hindson et al., 1994; Hogan & Norton, 2000; Pringle; 2001; Weed, 2009), they have found that, as minimal as it may be, the highest affected people are those who are already considered to be active (Coalter, 2004; De Bosscher et al., 2013; Weed, 2009). Because of this, the festival effect does not appear to provide a sufficient motivation or output for those who have had no history in participating in sport. Therefore, as Coalter (2004), De Bosscher et al. (2013) and Weed

(2009) note, the people who would be most affected by the TDE and corresponding demonstration effect would be those who have been/are already active in sport.

2. What activities will the Olympic Games influence/alter among host residents?

As previously mentioned, there is little empirical evidence to answer questions posed by scholars (Potwarka & McCarville, 2010). Despite this, Potwarka and McCarville (2010) suggest that "people may choose to participate in an Olympic sport, as opposed to another activity because these sports are being promoted and reinforced throughout the event" (p. 183). Typically in North America, Olympic sports are not showcased on television and media the same way that the traditional professional big four sports are (i.e., ice hockey, basketball, American football, and baseball). On television in North America, there is little exposure for many of the Olympic sports, except during the Olympic Games and in sport news highlight broadcasts. Even these highlights only take place in the weeks leading up to, and during the Olympic Games. There is little to no media coverage in North America of some winter sports such as bobsleigh, ski jumping, luge, skeleton, biathlon, or even summer sports for example high jumping, rowing, equestrian, taekwondo, and fencing outside the Olympic schedule.

During the two weeks when the Olympic Games are held, many of these sports are being broadcast worldwide, in primetime. This allows the population to be exposed to sports they would not usually watch. The Vancouver 2010 Olympic Winter Games were broadcast to the most countries of any previously held Olympic Winter Games, with a reach to 220 countries, compared to the previous high of 200 in 2006 in for the Torino Games (International Olympic Committee, 2013). Furthermore, the Vancouver 2010 Olympic Winter Games had 1,000 hours of coverage from the host broadcaster, the most

(tied with the Turin 2006 Olympic Winter Games), among all previous Olympic Winter Games (International Olympic Committee, 2013).

De Bosscher et al., (2013) state that "sport with higher media coverage may be more likely to be taken up by the community" (p. 333). This exposure promotes social learning which may allow for imitation to take place (Bandura, 1977). As people tend to be attentive to these events, which increases the possibility of imitation (De Bosscher et al., 2013) and therefore social learning, this is what leads to the increased probability of the TDE (Bandura, 1977). Therefore, Olympic sports that receive exposure in the media leading up to and during the Olympic competition are most likely to influence host residents (De Bosscher et al., 2013). Because there is a lack of empirical evidence to substantiate these statements, these speculations are simply speculations (Potwarka & McCarville, 2010).

3. Where (i.e., in which geographic regions) will the Olympic Games influence host residents' participation rates?

While the question asks 'where will the Olympic Games influence host residents' participation rates?', it can be more directly specified as to 'what geographic regions in the host country will see the greatest influence to participate in sport?' One can make the argument that residents in the host city are going to be subject to the most influence however, there may be other factors that come into play as well. While it is claimed that national pride is generated as a result of hosting an Olympic Games, and this may inspire people to become more active (Grix & Carmichael, 2012), it is near impossible to become physically active without the proper infrastructure (e.g., programs, facilities, coaches), at least in certain sports. For example, in Ontario, there are no sliding courses

in which to become active in bobsleigh, luge, or skeleton (International Luge Federation, 2014). Therefore it makes it very difficult to truly measure the impact that hosting an Olympic Winter Games may have on skeleton participation levels in Ontario. In cities that hosted Olympic Games, the construction of these sport facilities may allow the public more access to sport training venues, either in the Olympic stadia themselves, or previously reserved venues only used by elite athletes.

An example of a geographic region benefitting from hosting an Olympic Games would be the city of Calgary. Calgary hosted the 1988 Olympic Winter Games and the facilities "continu[e] to function as a multi-purpose competition, training and recreation area designed for year-round use by both high performance athletes and the general public" (WinSport Canada, 2014, para. 2). Without hosting the 1988 Olympic Winter Games, these facilities may never have been constructed. This is an example of the legacy that hosting Major Games may provide and contribute to enhanced participation in sport among the general population.

In order to ensure that people become or stay active and embrace the Games within the community and stimulate sport development, Olympic facilities must be available to the public, before and after the event (Coalter, 2004; Ritchie, 2000). This way it will allow residents who become inspired and motivated to participate and have a chance to be active in the same venues as their Olympic heroes. Therefore, one may expect that the city/area where the Olympic Games took place, to be more likely to experience increased participation in Olympic sports than in other areas of the host nation. This would be attributed to high media visibility as well as accessible venues which may not be available throughout the country.

4. When (i.e., what time either before, during, or after the event) will the Olympic Games influence host residents' participation rates?

Of the studies that seek to measure the legacy in terms of the TDE, many have taken place in only a few years, or even just months after the completion of the Major Games (Bauman et al., 2003; Hindson et al., 1994; Kaplanidou & Karadakis, 2010; Veal, 2003). In terms of evaluative length, according to Mangan (2008), it can take upwards of 20 years to properly measure and evaluate the true social impact of Major Games on the host nation. Therefore, one must take a long-term approach when evaluating Major Games.

In terms of evaluating an event, it is important to determine what is actually being measured, for example, the legacy or the impact of the event. Preuss (2007) argues that the terms 'impact' and 'legacy' should not be used interchangeably since they have different meanings and effects based on time. The term 'impact' describes the short-term shock to the community as a result of a Major Games event while the term legacy best describes all changes caused by such an event over time (Preuss, 2007). It is important to note this difference as a legacy is a long-term goal which can be proactively controlled through legacy planning, while an impact is more of a short-term outcome, which is more difficult to manage. What this means is that, as per Preuss (2007), a legacy can be controlled and planned, while an impact is simply observed and actions can only be taken in response to the outcomes. As Weed et al. (2012) explain, legacies must be proactively leveraged since there is no evidence for a naturally occurring positive sport participation legacy. Therefore, organizing committees must proactively control the long-term legacy

of each Games in order to support the short-term impacts that may have been realized as a result of hosting.

With the building of new facilities, the argument can be made that the Olympic Games will influence host residents' participation rates, as the community may be able to utilize former training facilities that were restricted to elite athletes. The argument can also be made that during the Olympic Games, this timeframe may act as the greatest influence because of the exposure that is granted to these events, which was discussed earlier. Finally, another claim can be made that upon the completion of the Olympic Games, this period of time will be the greatest opportunity to inspire the population to be more active. Those who were inspired to participate will now have the motivation as well as the drive to participate in sports they may never have contemplated before. Therefore, based on the literature, it is very difficult to provide an answer to this question, since most of the studies are completed within a short time following the conclusion of the Games (Bauman et al., 2003; Hindson et al., 1994; Kaplanidou & Karadakis, 2010; Veal, 2003).

5. Why might the Olympic Games make host residents more active?

Throughout the questions posed by Potwarka and McCarville (2010), many of the answers provided in this chapter are applicable for this section. First, the Olympic Games provide an outlet for the sports which are not common place in North America to be visible to the general population, some of whom may be willing to try and participate in these Olympic sports. Based on Bandura's (1977) social learning theory, one may be more inclined to become active in a sport where high performance athletes have been successful. With the Olympic Games granting these sports the exposure that they do not

regularly receive, other than during a two week span once every two years, it heightens the possibility of imitation and can motivate people to become more active in a sport to which they are rarely exposed.

Next, the new facilities which are constructed for the Games, allow for more people locally to become active, following the hosting of the Games. As Ritchie (2000) and Weed et al. (2012) address, one of the elements of proactively leveraging a Games in order to inspire participation is to keep the Olympic venues open and available for community use. Without hosting the Games, these facilities may never have been constructed, leaving little opportunity for someone to try sports, especially one where proper venues are crucial for participation.

As previously discussed, the TDE "is not necessarily underpinned by any explanatory theory or model of behaviour change" (Potwarka & McCarville, 2010, p. 186). Because of this, it is difficult to explain explicitly and consistently between different cases of Major Games, why a TDE should exist. It is also evident that a TDE is not necessarily guaranteed; therefore this statement given by Potwarka and McCarville (2010) is difficult to respond to through the literature. Although, based upon studies completed (Cashman, 2006; Potwarka & McCarville, 2010; Truno, 1995), the reoccurring themes which have been evident are the increased visibility of sports as well as the accessibility of sport facilities. Again this allows for the opportunity for the general population to become inspired and motivated to participate and become active in sports; though this is not always, the case (Frawley & Cush, 2011; Hindson et al., 1994; Hogan & Norton, 2000; Pringle, 2001; Weed, 2009).

Sport Participation

According to Koivula (1999), "sport participation on a regular basis has been shown to have positive effects on physical health, psychological enhancement, stress reactivity, and mental wellbeing" (p. 361). Sport participation can be in the form of organized club activity or participation in non-organized activities. Increased sport participation means increased physical activity, which in turn increases the likelihood for healthy living. It is important to note that the terms 'sport' and 'physical activity' are not one in the same, however sport typically involves physical activity. The following section will define and explain sport, physical activity, and sport participation as well as outlining the importance of sport participation and increased physical activity to society.

"Sport is defined as physical activity that requires a sufficient rate of exertion and that takes place in an athletic context during leisure time" (Scheerder et al., 2005, p. 143). Scheerder et al. (2005) use the term 'physical activity' within their definition of sport. Similarly Koivula (1999) finds that to participate in sport and physical activity as outlined by Scheerder et al. (2005) results in positive physical and cognitive benefits. Because of these benefits, it is crucial to motivate both youth and adults to become physically active, which can be achieved by participating in sports. Based on these findings, the more invested a nation is in promoting sport and sport participation, the more likely it is to be considered healthy at least in comparison to a country that does not prioritize sport participation. Therefore it is of utmost importance that sport organizations at all levels properly convey the benefits of increased physical activity (Hindson et al., 1994) as well as leverage these Major Games in order to promote sport participation.

The definition of sport participation lends itself to the definition of sport. Scheerder et al. (2006) define sport participation as "being involved in leisure-time sports activities whatever the level of sports participation may be" (pp. 419-420). The general idea of sport and sport participation both inherently promote physical activity, no matter how intense. This is an important concept to understand because no matter what sport as well as the intensity of said sport is taking place, it provides the participant with some form of physical activity.

It is up to the sport specific organizations at the national, provincial/territorial, and community levels to properly market their services as well as the sport itself, especially around a Major Games. For example, Hindson et al. (1994) state "the nature of the modern Olympics suggests that if they [sport organizations] are to benefit from this phenomenon, sports clubs should consider how to *create* marketing opportunities" (p. 20). It is up to the sport organizations to properly manage the opportunities Major Games provide in terms of creative marketing strategies, to capitalize on the increased exposure (Hindson et al., 1994).

Hegaard, Hedegaard, Damm, Ottesen, Petersson, and Henriksen (2008) define physical activity as "sports training (hours spent weekly, the type of sport) and the total amount of leisure time spent on physical activities, including sports and other forms of exercise" (p. 180.e1). This definition uses the term 'sports' which is of importance because in all definitions, it discusses the relevance of sport to physical activity. Therefore sport plays an important role because it provides an outlet for people who choose to be physically active.

Bauman, Phongsavan, Schoeppe, and Owen (2006) also provide a definition of physical activity. They define physical activity as "behaviours that result in 'any movement contributing to human total energy consumption'" (p. 93). Statistics Canada (2013) provides an outline to classify levels of physical activity. It provides three designations; physically active, moderately active, and inactive. These classifications are based upon the number of times the activity was performed, the average duration of the activity, and the energy outputted. Upon this classification, those who use 3.0 kcal/kg/day or more are physically active, those who use 1.5 to 2.9 kcal/kg/day are moderately active, while those who use less than 1.5 kcal/kg/day are inactive (Statistics Canada, 2013). According to Statistics Canada (2013), 53.8% of Canadians are subject to leisure-time physical activity and are physically active or moderately active. This means that 46.2% of all Canadians do not meet the requirement to be considered active.

What these statistics present, based upon the previous definitions of physical activity and the inherent role that sport plays in providing an opportunity to be physically active, NSOs, P/TSOs, and CSOs are not properly promoting the benefits of physical activity. While it can be argued that national, provincial/territorial and community sport organizations' mandates may not be to promote physical activity, it can however, be argued that the mandate includes growing the sport. For example, the Canadian Curling Association (CCA) (2014), states their mission and mandate "is to encourage and facilitate the growth and development of curling…" (para. 1). While this may not directly promote the benefits of physical activity, it was previously discussed that sport is regarded as physical activity. Therefore, for NSOs, P/TSOs, and CSOs, such as the CCA to state that their mandate is to grow the sport, it can also be argued that they are

simultaneously stating that their mission is to grow physical activity, through/in/using the sport.

Economic Importance of Physical Activity

In addition to Koivula's (1999) bodily and holistic claims of the benefits of sport participation and physical activity, there is an increased economic benefit that sport participation can provide. Hogan and Norton (2000) argue that the reason why sport participation is important and needs to be researched is because of the financial implications. In addition to the inherent physical and mental benefits presented by Koivula (1999), there are just as many economic advantages which can benefit the host nation if sport participation and physical activity levels are increased. In Hogan and Norton's (2000) research, they were able to generate nation-wide statistics on Australia's and the corresponding communities' economic benefits from increased participation rates.

As discussed in Chapter I, there are large economic benefits which a country can realize with increased levels of physical activity. Specifically Canada's economy lost approximately $7.1 billion in 2008, due to obesity and the corresponding illnesses (Public Health Agency of Canada, 2011). Even a slight increase in active individuals in Canada can improve the entire economy. This is one of the findings of Veal and Frawley (2009), in that a decrease in the sedentary population of a country can drastically contribute to the nation's overall economic status.

Veal and Frawley (2009) found that a simple 10% increase in physical activity and sport participation rates in Australia would produce benefits worth $952.6 million or about $480 per person. What these statistics present are that not only sport organizations

should be concerned with increasing sport participation rates. Leaders of the economy should promote increased physical activity in order to reap the economic benefits, which stem from the mental and cognitive benefits presented by Koivula (1999).

Comparing this to Canada, Australia had a population of 21,778,800 in 2009 (World Bank, 2014), when Veal and Frawley (2009) published these results. Since then, the population has increased by 4% to a total of 22,683,600 (World Bank, 2014). Currently Canada has a population of 34,880,491 (World Bank, 2014). With a population difference of roughly 35%, adjusting for this and assuming that a 10% increased physical activity rate in Canada would benefit the country in the same fashion as that of Australia, the Canadian economy would benefit from over $1.286 billion in increased benefits. These benefits would consist of reduced injury and death expenses as well as decreased health costs related to obesity rates and preventable diseases/illnesses. Therefore it is important for Canadian sport organizations to understand, value, and promote sport participation in order to realize these potential economic benefits.

Sport Major Games Legacy

Because of the wide range of effects that the legacy of a sport Major Games has on its host city and country, it becomes a challenge to find and develop one all-encompassing definition of sport event legacy. Preuss (2007), however, proposes the following definition of legacy: "all planned and unplanned, positive and negative, tangible and intangible structures created for and by a sport event that remain longer than the event itself" (p. 211). Using this definition allows for the support of long-term, long-lasting sport development outcomes of hosting such events. By hosting an event like the Olympic Games, it provides the host city and nation with a motive and an outlet to

promote sustainable development in such areas as sport. Without hosting a Major Games, there may not be a catalyst which drastically influences changes to sport policy in order to affect long-term sport development, especially for mass sport athletes.

In determining what a sport Major Games legacy is and consists of, it is important to note that there are several areas where hosting an event such as the Olympic Games can affect the host nation and city. According to Cashman (2006), there are seven categories or fields which a sport event legacy can affect. These are: sport, economics, infrastructure, information and education, public life, politics and culture, and symbols, memory, and history (Cashman, 2006). In another study undertaken by Chappelet, five similar categories of sport event legacy are developed. They are: sporting legacy, economic legacy, infrastructural legacy, urban legacy, and social legacy (as cited in Preuss, 2007).

According to Homma and Masumoto (2013) "the Olympic legacy generally persists for a decade or more, and the stakeholders involved maintain their relationships with the Games long after they have ended" (p. 1456). This matches the sentiments of Mangan (2008), discussed earlier in relation to the finding that it can take upwards of 20 years to properly measure and evaluate the legacy impacts on the host nation. To understand the window of opportunity for, first, embracing the values and ideals of the Major Games into the community, and, second, to measure its legacy, requires a long-term outlook and strategic planning by the city, nation, and organizing committee. As well, specifically considering Olympic Games legacies, the International Olympic Committee (IOC) understands and promotes these ideals to the host city and nation, as evident in the Olympic Charter (International Olympic Committee, 2013).

The long-term outlook and evaluation methods for these Major Games, specifically the Olympic Games are becoming more prominent because of the IOC's role in promoting the Olympic values to the host city and nation. According to Homma and Masumoto (2013),

> it is now important for the IOC, host cities and countries to understand how the Olympic legacy could be developed and how the Olympic legacy could be better measured. This is also significant because one of the IOC roles defined in the Olympic Charter is to promote a positive legacy from the Olympic Games to the host cities and host countries. (p. 1456)

This legacy initiative falls under the mission of the IOC in the Olympic Charter which states "the mission of the IOC is to promote Olympism throughout the world and to lead the Olympic Movement" (International Olympic Committee, 2013, p. 16). It is not just up to the host city, host nation, and organizing committee to promote the legacy movements which are brought forth using the Olympic Games as this catalyst, but up to the IOC as well.

Furthermore, the IOC's (2013) Olympic Legacy Brochure suggests that there are two types of Olympic Legacy, tangible legacies and intangible legacies. This corresponds to Preuss' (2007) definition of sport event. These tangible legacies can include newly developed sport facilities, transportation systems, telecommunications, or other physical infrastructure that can be used both by athletes as well as the general population of the city (Homma & Masumoto, 2013). In terms of intangible legacies, some include national pride, improved policies and practices, enhanced skills and knowledge, Olympic education, or promoting a healthy lifestyle (Homma & Masumoto,

2013). A sport event legacy, such as one resulting from hosting of an Olympic Games provides the city, nation, and population an opportunity to enhance sport policies and programs, especially those that promote sport participation. It is to be understood, however, that legacies do not just occur. There needs to be a strategy put in place in order to maximize legacies provided by hosting a Major Games. (Leopkey & Parent 2012).

Proactive Legacy Planning

Soteriades, Hadjichristodoulou, Kremastinou, Chelvatzoglu, Minogiannis, and Falagas (2006) suggest that "the Olympics provide a first-class opportunity to promote healthy messages to the general population and inspire people of all ages to become fit, and improve their health" (p. 2). It is up to the host nation, however, to turn this opportunity into reality. Following the hosting of a Major Games, like the Olympic Games, the host nation has the responsibility to carry on the legacy that the Games provides. This means that the host nation must instill the Olympic values amongst the nation, which surfaced during and after the event. Through infrastructure improvements, additional government and commercial sector investments in sport and the mass exposure to sport resulting from hosting a Major Games, host nations need to be able to leverage these results of hosting, into providing the country with a long lasting legacy. A sport event legacy does not come naturally; it requires the country to be proactive in their approach (De Bosscher et al., 2013).

While Leopkey and Parent (2012) find that Major Games legacy has become a "taken-for granted institutional rule that has impacted how organizations plan and implement the Games" (p.452), De Bosscher et al.'s (2013) findings yield different

results. According to De Bosscher et al. (2013), "one of the most important changes in the governance of event legacy has been a shift from *ex post* (after the event, reactive) to *ex ante* (before the event, proactive) strategic planning" (p. 323). This is of utmost importance because host nations are realizing that the taken-for-granted legacy approach, presented by Leopkey and Parent (2012) is not an effective way to strategize sustainable sport and sport participation development. It is up to governments in the host nation to promote the sport values which are developed in the time following the Games.

As discussed earlier, Preuss (2007) considers a legacy as all of the long-term changes caused by an event over time. Comparing this to an impact, Preuss (2007) argues that the term 'impact' best represents the shorter-term changes which result from the hosting of a Major Games such as the Olympic Games. These impacts may be more applicable to Leopkey and Parent's (2012) taken-for-granted institutional rule, because of the immediate tangible and intangible outcomes that can benefit the host city and host nation. While there may be little control over these short-term outcomes (Preuss, 2007), the longer-term goals and outcomes can be planned out and directed. Again, bringing this back to De Bosscher et al.'s (2013) point, this view is changing as there is a more proactive approach towards sport event legacy compared to prior reactionary approaches.

This is further supported by Coalter (2004) who discusses the need to embed the culture brought forward in the host nation through the hosting of a Major Games. According to Coalter (2004), "legacy planning needs to ensure that the enthusiasm for the 'event window' is maintained by ensuring that sporting commitments are consolidated prior to event to ensure post-event commitment" (p. 104). Because a Major Games, such as the Olympic Games, only provides a small window of exposure to some little observed

sports, it is of utmost importance that NSOs, P/TSOs, and CSOs continue to market their respective sport. This is what a sport legacy is; it can stimulate the population's interest in the ideals, values, and exposure of sport and the benefits of sport.

London 2012

One such planned legacy was that of the London 2012 Olympic Games. The London 2012 Organizing Committee has been the only one in history that has taken a proactive approach to legacy planning, specifically when leveraging the Games to increase sport participation levels and incite the country to become physically active (Boardley, 2013; Coalter, 2004; Coalter, 2007; Weed et al. 2012). According to Boardley (2013), in discussing sport participation legacy, "research has shown that past games have not generated any enduring increase in sport participation, although London is the first Olympics to explicitly promise a legacy in mass sport participation" (p. 252). According to VanWynsberghe, Surborg, and Wyly (2013), "the 2012 Games in London…are forecast to reveal unprecedented levels of government leveraging of the sport mega-games to physical activity and performance across the United Kingdom" (p. 17). Through long-term strategic planning, the London Organizing Committee of the Olympic and Paralympic Games (LOCOG) has set themselves up as a proactive strategist in using the London Games to promote sport participation.

According to Homma and Masumoto (2013), when developing a bid for an Olympic Games, "the Olympic legacy should be considered from the first steps of the bid process in the organisation of the Games" (p. 1459). This confirms De Bosscher et al.'s (2013) findings that the governance of event legacies are moving forward towards strategic planning. With the IOC's self-developed role "to promote a positive legacy

from the Olympic Games to the host cities and host countries" (International Olympic Committee, 2013, p. 17), it is of utmost importance that the IOC, National Olympic Committee, and the host organizing committee are working together in order to promote the ideals of Olympism throughout the host nation.

One of those legacy principles is the promotion of sport participation and physical activity (International Olympic Committee, 2013). In the London 2012 bid document, it was clearly stated that "grassroots participation would be boosted. An already sports-mad nation would get fitter and healthier" (Coalter, 2007, p. 109). This follows Homma and Masumoto's (2013) findings and provides a practical example which works well with an academic finding. While previous Games have not had such success (Frawley & Cush, 2011; Hindson et al., 1994; Hogan & Norton, 2000; Pringle; 2001; Weed, 2009), each respective Games has not had a clear goal of increasing mass sport participation. London 2012 is also a practical example that governance of an event's legacy is moving forward and being planned because of this explicit target and the developed strategy, focusing on promoting sport participation (De Bosscher et al., 2013). Therefore, London, with its explicit pre-Games bid goal seeking increased sport participation and physical activity, is one of the primary examples for a strong, proactive National Olympic Committee and Organizing Committee regarding sport legacy (Boardley, 2013; Homma & Masumoto, 2013).

The strategy that Sport England, the governing body for sport in England, is implementing to increase these mass sport participation levels is focused on investing a large amount of money into both mass sport and elite level sport, as well as maintaining a sport-based curriculum for primary school children (Department for Culture, Media &

Sport, 2012). While Sport England is not the organizing committee for the London 2012 Olympic Summer Games, it still plays a very important role in stimulating and promoting sport participation in the country. As per the United Kingdom's Department for Culture, Media and Sport (2012), the following is the funding structure which is in use to promote sport participation:

- investing £150 million in primary school sport for the 2013 to 2014 academic year and following 2 years
- investing more than £100 million of lottery money and public funding into the School Games over the next 3 years
- investing £1 billion over the next 5 years in the Youth and Community (para. 3-5).

With the theoretical justification, increased funding, and positive outlook for such a goal, have the legacy strategies implemented by London 2012 actually paid off? In June of 2012, prior to the London Games, United Kingdom's Department for Culture, Media and Sport (2012) reported, using Sport England figured, that its population's sport participants had increased by 500,000 in six months leading up to the event and over 1.3 million more than in 2005 when the city was awarded the Games (Department for Culture, Media & Sport, 2012). Following the Games, there were reports in popular media that sport participation levels had in fact increased (BBC, 2013; Hart, 2012).

The Telegraph indicated that sport participation had increased by 750,000 compared to a year prior to the London Games (Hart, 2012). Furthermore, the British Broadcasting Corporation (BBC) found similar numbers and reported that 30 new canoeing clubs had been established following the Games because of a surge in demand

(BBC, 2013). This report, however, was delivered in February of 2013. In June of that same year, three reports from three separate news outlets, London24 (2013), Sky Sports (2013), and *The Guardian* (Gibson, 2013) all reported that sport participation had in fact fallen compared to the pre-London statistics, using data provided by Sport England. Gibson (2013) reports that 15.4 million people were active in sport in April of 2012, prior to the London Games, and those numbers fell to 15.3 million participants a year later. Even though this is a relatively small decrease, the goal of increasing sport participation had not been met. Gibson (2013) also found that of 29 sports that had experienced a difference in participation rates following the Games, 20 showed decreases, while only nine showed increases.

This was confirmed by the Government of the United Kingdom (2014) that found, "Inactivity in British adults exceeds the international average" (p. 7) and that "a large proportion of the UK population is still inactive" (p. 7). The Government of the United Kingdom (2014) also states "what characterises international success has been a long-term strategy with strong co-ordination between physical activity, sports and other sectors, including commitment to a sustained messaging campaign" (p. 7). This statement echoes that of Coalter (2004) who found that "governing bodies and clubs need to work together more closely to develop innovative marketing and promotional campaigns that capitalise on the high profile media coverage of the London 2012 Bid" (p. 108). There needs to be more integration of sport policies between sport organizations in England, as well as other countries after their respective Major Games, in order to maximize the potential that hosting a Major Games can provide. The fact that participation rates are not increasing in England, along with the statement in regards to

the need for co-ordination between physical activity, sports, and other sectors, demonstrates that without this co-ordination, there is little chance for success.

One could argue that not enough time has passed in order to determine whether the LOCOG has failed in their goal of increased sport participation. As stated by Mangan (2008), it can take up to 20 years to evaluate legacy impacts. Therefore, it may be too early to question the LOCOG apparent inability to achieve their pre-Games goal. The development which stands out from these statistics is that they are similar to organizations that claim to have a proactive legacy strategy.

Are using Major Games the most cost effective way to promote sport participation? Do countries hosting these types of events maximize the resources invested in order to promote sport participation? Is there a better strategy where funds can be spent to promote sport participation and physical activity, or does there need to be an investment in a Major Games, such as the Olympic Games in order to encourage people to become involved in sports and/or physically active? Finally, would money be better invested directly into mass sport funding or would it provide a better return with investing in elite level sport, hoping that the results will trickle down to the mass sport system?

Elite versus Mass Sport Funding

In terms of leveraging a sport Major Games to inspire a population to become active, does this outlet provide the best value for money? Based on the TDE, if a government invests in elite sport funding, the showcase and success of that nation's athletes will filter its way down to the mass sport level. According to Potwarka and McCarville (2010), "public sector investment in hosting the Olympic Games is often justified in terms of trickle-down effects" (p. 179). This is echoed by Pringle (2001) who

states “the main arguments used to justify government funding of elite sport are the belief that sporting success will result in increased mass sports participation” (p. 70). According to Coalter (2004), “it would seem that hosting events is not an effective, value for money, method of achieving…a sustained increase in mass participation” (p. 97). Based on the short-term statistics presented earlier in relation to the United Kingdom’s sport participation levels, the investment in this elite level sport Major Games has not provided an adequate return. As well, previous studies have concluded similar findings that investment in Major Games is not an effective value for the money spent, at least in regards to increasing mass sport participation levels (Hogan & Norton, 2000; Pringle, 2001).

One example of such a study would be Hogan and Norton (2000). They analyzed the Australian government’s investment into high performance elite level sport competition, the athletes’ performances internationally, and the corresponding physical activity changes in the country over a 20 year time period between the 1970s and the 1990s. Hogan and Norton (2000) found that, while government investments in high performance sport increased during this time period, Australians generally became more sedentary. The authors concluded that any suggestion of increasing funding to elite level sport trickles down and improves mass sport participation levels is unwarranted (Hogan & Norton, 2000).

Furthermore, Pringle (2001) uncovered similar findings to those of Hogan and Norton (2000). While Hogan and Norton (2000) focused on Australian sport participation statistics, Pringle (2001) focused on New Zealand data. Pringle (2001) studied the Hillary Commission, a commission organized in 1987 with the objective of

"develop[ing] and encourage[ing] sport and active living for *all*" (p. 59). The commission "asserted that increased international success in sport would help forge and affirm a positive national identity while creating role models for aspiring athletes. This, in turn, was assumed to be indirectly connected to increased levels of sporting participation and physical activity" (Pringle, 2001, p. 60).

Pringle (2001) concludes that "in the case of increasing grassroots participation, it is shown that there is no evidence to support the proposition" (p. 70) that increased elite level funding trickles down to benefit mass sport. Grix and Carmichael (2012) however contradict this in their findings. They argue that

> the virtuous cycle of sport holds that elite success on the international stage leads to prestige and elite sport contributes to a collective sense of identity; this, then, boosts a greater mass sport participation, leading to a healthier populace; this, in turn, provides a bigger 'pool' of talent from which to choose the elite stars of the future and which ensures elite success. The process then starts over again. (p. 76-77)

This finding promotes the idea of sport development sustainability where there is a TDE and trickle-up effect. As evident from the previously discussed studies, however, this claim is not guaranteed. Therefore, a more directed mass sport investment strategy may be best in order to ensure that funding is directly invested in the organizations that promote sport participation directly, as opposed to indirect means, such as the TDE.

Rationale and Literature Gap

While there have been many studies about prior Major Games, there have been no such studies undertaken on the impact of the Vancouver 2010 Olympic Winter Games on

increasing sport participation levels among Canadians. Therefore, there is a gap in the literature to which this study seeks to address; that is explore sport participation and physical activity legacies of the Vancouver 2010 Olympic Winter Games. Regardless of the event, theoretically, any type of Major Games which has the ability to inspire and motivate a nation can be studied. The Vancouver Games present an opportunity to study such an event, relative to the researcher's interest, while still applicable to the topic of study.

These Games provide an opportunity to study the potential TDE outcomes at three different levels: national, provincial/territorial, and community. As previous studies have outlined, there has not been great success in increasing mass sport participation levels after hosting a Major Games (Frawley & Cush, 2011; Hindson et al., 1994; Hogan & Norton, 2000; Pringle; 2001; Weed, 2009). These studies, however, have only focused on national based statistics (Frawley & Cush, 2011; Hindson et al., 1994; Hogan & Norton, 2000; Pringle; 2001; Weed, 2009). There has been little research undertaken on a smaller scale, studying the athletes, CSOs, P/TSOs, and NSOs. This current study addresses this gap on these three levels: national, provincial, and community. The following chapter discusses the research method and strategies for data collection.

In addition, the use of mixed methods to study this topic is severely lacking. As will be discussed in the following section, this study utilized a combination of quantitative and qualitative methods to determine the potential TDE of hosting the Vancouver 2010 Olympic Winter Games. Since studies sharing the same methodology as this one are rare, this research can serve as a model for future TDE scholars. Therefore,

this research also contributes to filling the literature gap by including mixed method approach to the study of the TDE.

Chapter IV: Research Method

In the previous chapter, studies examining the Trickle-Down Effect (TDE) were discussed as well as their findings. As noted, there are no explicit, explanatory theories or models upon which to base this type of research (Potwarka & McCarville, 2010). This presents somewhat of a challenge to determine what methods are best suited for this study. Since there is no consistent precedent set in terms to completing studies on the TDE, there is not one method in which to complete the research. A combination of research methods is deemed appropriate in order to effectively collect data and analyze them to investigate the effects of hosting a Major Games on sport participation.

Throughout past TDE studies involving sport, there have been little to no combination of methods. De Bosscher et al. (2013) have used quantitative methods by completing a Pearson correlation coefficient for "each sport to measure the relationship between membership and performances in the ESI [elite sport index – an index which measures success at elite international competition, by weighting results] for each year" (p. 324). Meanwhile, Frawley and Cush (2011) took a qualitative approach, using a case study method in their research. Because of the lack of mixed methods, the social impact these Major Games have on sport participation levels may not be accurately measured because there are no all-encompassing studies.

While one study may use a quantitative method to measure club membership statistics, regionally and/or nationally, these data may be skewed because of certain independent variables, such as costs of joining, family income, and population, among others which will be touched upon later in this chapter. A qualitative method in such a study, however, may only involve research directed at a certain number of community

sport organizations (CSO) and the TDE that has affected these organizations, while not taking the larger, broader sport participation statistics into consideration. There has been a discrepancy in past TDE studies in terms of a depth of understanding and the overall impact of the Major Games on mass sport participation. Therefore, this study will analyze all facets of the TDE, both statistics and observed trends, first quantitatively on a national and provincial membership scale as well as qualitatively researching athletes, coaches, and administrators on a smaller scale.

This study uses combination of mixed methods; both quantitative and qualitative data analysis. According to Johnson, Onwuegbuzie, and Turner (2007) "mixed methods research is the type of research in which a researcher…combines elements of qualitative and quantitative research approaches…for the broad purposes of breadth and depth of understanding and corroboration." (p. 123). Through the use of both quantitative and qualitative research methods, this mixed methods strategy will allow for an all-encompassing study in order to measure the TDE of the Vancouver 2010 Olympic Winter Games. Prior studies on TDE in the context of sport have not used mixed methods. This study will rely on both qualitative and quantitative research methods measures and as a result, this contribution to the field will help broaden one's understanding of the TDE.

Epistemological Approach

The nature of knowledge, or the epistemology, in this study is one which is "produced; dependent and value-laden; subjective, [and] co-created" (Tracy, 2013). Due to the nature of TDE studies, this research has an interpretive base, due to these data and knowledge as well as the epistemological stance. Since these data and knowledge are produced through societal actions and reactions, as well these data being dependent upon

Olympic years and the resulting competition exposure, an interpretive lens best fits this analysis. In addition, this study is dependent on where the Games were hosted, as well as co-created by the elite versus mass sport divide, this divide being lack of financial and political attention given to the general population, as illustrated by Kirkeby (2009).

Due to the lack of understanding of the TDE, in that it is "not underpinned by any explanatory theory" (Potwarka & McCarville, 2010, p. 179), this discrepancy allows for subjective interpretations by the research participants and the researcher. The findings which will be uncovered by this study allow for multiple realities, contested implications, and no one bounding truth (Hesse-Biber & Leavy, 2011). According to Tracy (2013), in the interpretive paradigm, "both reality and knowledge are constructed and reproduced through communication, interaction, and practice" (p. 40). With mixed methods used in this study, it allows for these research data and knowledge to be interpreted through the eyes of the researcher, another trait of the interpretive paradigm (Tracy, 2013).

While the mixed methods used in this study is valuable for collecting data, the quantitative research specifically can be analyzed through an objective lens. As the robust quantitative data collection took place, this macro level analysis of participation trends can be viewed objectively and findings can be assessed through the interpretive qualitative analysis. The following section addresses this interpretive paradigm and the importance it holds for this study.

Interpretive Paradigm

In determining how the interpretive paradigm is most appropriate for this study, Tracy (2013) provides several criterions to explain the different factors into determining

each respective paradigmatic approach. The following will examine these criteria and how they fall in line with this study.

Focus of the Study

According to Tracy (2013) the focus of an interpretive study involves "examining not only behaviors but intentions and emotions" (p. 40). This is a very important component of TDE studies in that research has found that people's intent to participate in sport has risen after these Major Games, yet they do not necessarily follow through with this intent (Bauman, Armstrong, & Davies, 2003; Boardley, 2013; Potwarka & McCarville, 2010). These intentions following the hosting of a Major Games are inherent in these TDE studies because intent to participate can be the first step directed to activity. It is when the intent does not result in action when it becomes problematic. Therefore, an interpretive view, in terms of paradigmatic approach to the study, is considered most appropriate.

Method

Tracy (2013) discusses an interpretive study as "multiple methods show the contexts' layered and partial nature" (p. 40). As previously discussed, there are several levels which are required to be analyzed in order to find the TDE of hosting a Major Games. Qualitative and quantitative methods are used in order to measure the major and minor impacts resulting from hosting a Games. Therefore, this study is best suited to an interpretive paradigmatic approach.

Goal of Research

Tracy (2013) discusses the goal of research for an interpretive study. She finds that an interpretive study's goal is "to understand why and how; to be useful and interesting"

(p. 40). An interpretive study seeks to explain and outline an issue. The primary goal is to understand, while other paradigmatic approaches may seek to "improve and transform; to disrupt power relations" (Tracy, 2013, p. 40), such as that of the critical paradigm. This study can be useful in both theory and practice, in that it can be used academically to develop stronger theory understanding for further TDE studies. Practically, the research can be presented to national sport organizations (NSOs), provincial/territorial sport organizations (P/TSOs), and CSOs to increase their understanding of how these Major Games can affect the population and their potential interest in participating in sport. In the next section, the respective quantitative and qualitative analysis methods will be described.

Sport and Event of Study

While it would have been ideal to have studied all winter sports and the possible TDE of the Vancouver Games, due to the timeline and the resources available for this study, one sport was selected as a representative for winter sport participation in Canada. The sport selected for analysis is figure skating. The reason for selecting the sport of figure skating for this case is because the sport is typically club centric and practiced within the club system, where membership numbers can be measured. In addition, figure skating participation does not necessarily require club membership. Someone can be active in this sport on a backyard or a local rink however, recreational figure skaters may not be learning the proper techniques or partake in competition, the sport can still be accessed by many[2]. As discussed previously, sports such as bobsleigh, luge, or ski

[2] In terms of accessibility to all, this is coming from an availability of venue point of view. There are figure skating clubs throughout all provinces and territories in Canada. Comparing this to bobsleigh, there are only two tracks in Canada. While the cost of membership, coaching, and access to the facilities can be restrictive, the availability in terms of the amount of figure skating

jumping are not accessible to the general population because of the equipment and venues necessary for participation. Figure skating, however, can take place at any rink and is available in every province and territory, either leisurely or competitively. Therefore, figure skating presents a strong sport of study because it can take place at any community hockey rink.

In terms of selecting the Vancouver 2010 Olympic Winter Games as the event of study, this event provided a recent example of a major multi-sport event occurring within Canada, in relative close proximity to the researcher. While there may have been differences in comparing a single sport international event and a major multi-sport event, such as the Figure Skating World Championships and an Olympic Games, the 2010 Vancouver Olympic Winter Games provided a highly visible (i.e., media coverage) event where a number of Canadians were exposed to the Games. The IOC (2011) reported "record audiences in Canada – 99 per cent of Canadians experienced the Games" (p. 1). This exposure could have played a role in inspiring Canadians to become active participants in winter sport.

Role within the Study

In terms of my role within the study, I have always been fascinated with the Olympic Games. As a fan of the Olympic Games and a student of sport management, I have always wondered what impacts these Games have had on the host nation and society in general. This thesis provided me with an opportunity to develop a study based upon my interests. I believe in the power of the Olympic Games to lead to positive impacts in

---

venues allows the sport to be accessible to all, rather than a sport such as luge, skeleton, or bobsleigh.

society, however I kept an open mind and questioned my interpretation of the results constantly to ensure my passion for the Games did not result in bias.

Data Collection Sequence

In terms of the sequencing of methods, Creswell (2003) illustrates three data collection strategies that are common in mixed methods research. These data collection strategies are "sequential procedures", "concurrent procedures," and "transformative procedures" (p. 16). According to Creswell (2003), sequential procedures occur when "the researcher seeks to elaborate on or expand the findings of one method with another method" (p. 16). Concurrent procedures take place when "the researcher collects both forms of data [quantitative and qualitative] at the same time during the study" (Creswell, 2003, p. 16). Finally, Creswell (2003) states that a transformative procedure for mixed methods data collection occurs when "the researcher uses a theoretical lens as an overarching perspective within a design that contains both qualitative and quantitative data" (p. 16). As will be outlined in the following sections, quantitative data are collected first and used to determine the target sample to be utilized for qualitative data collection. This data collection strategy falls in line with Creswell's (2003) identified strategy of sequential procedures in that these quantitative data guided qualitative data collection.

Quantitative Method

In order to understand the TDE resulting from hosting the Vancouver 2010 Olympic Winter Games, it is important to analyze the change in the number of sport participants. The issue with this is that it is very tough to analyze nationwide sport participation statistics, since sport participation can take place without any organizational

affiliation. In order to gain insight into sport participation statistics nationwide, club registration and membership statistics provide a good source of data.

Since many winter sports require specialized venues, membership data may present more realistic numbers compared to a summer sport. For example, someone can take up tennis after watching Wimbledon; however he/she does not necessarily need to join a local club in order to start playing tennis. He/she can simply play tennis at the local park where courts are available. With many winter sports, such as bobsleigh, figure skating, speed skating, curling, and skeleton, the need for specialized facilities require individuals to be members of a local club. For example, there are no local public bobsleigh tracks that citizens can use. The closest venue to a public bobsleigh track would be a snowy hill where people can go tobogganing. Therefore, membership data gives a more realistic picture on participation for these winter sports examples.

In order to analyze and determine if there was a change in figure skating membership data leading up to, during, and following the Vancouver 2010 Olympic Winter Games, figure skating membership statistics were collected from Skate Canada for analysis. Skate Canada sent their membership numbers from all respective regions throughout Canada, over a ten-year data period, from 2003 to the most recent available data, the 2013 season. The reason these data collected started in 2003, was because this was when Vancouver was originally awarded the Olympic Games (Government of Canada, 2009).

Through the use of descriptive statistics, these figure skating data have been analyzed in showcasing the resulting TDE of hosting the Vancouver 2010 Olympic Winter Games on sport participation. This analysis will represent the larger scale

element of this study in regards to the TDE, looking at the country's figure skating population as a whole, along with the increases and decreases over the ten-year data set. The following section will discuss the quantitative research method and strategies.

Descriptive Statistics

Descriptive statistics are defined as "techniques which allow us to tabulate, summarize, and depict a collection of data" (Lomax & Hahs-Vaughn, 2013, p. 6). Furthermore, Liu, Parelius, and Singh (1999) explain descriptive statistics in that "They can be displayed as simple graphs on a plane and easily visualized." (p. 784). Finally, Laerd Statistics (2013) describe descriptive statistics as "the term given to the analysis of data that helps describe, show or summarize data in a meaningful way such that, for example, patterns might emerge from the data." (para. 2). What this all represents is that the main use of descriptive statistics is to easily interpret and discuss these quantitative data which was collected from Skate Canada.

By creating scatter plots, as well as measuring the percentage differences between skating seasons, these data will be able to show if figure skating membership statistics increased or decreased in corresponding years, possibly due to a significant event. While this use of statistical analysis does not necessarily create a way to correct for possible other variables which may have influenced sport participation rates, including Olympic influences, it provides a suitable method due to the explanation of these presented data. As qualitative data analysis will also occur, these two research methods fit well together in that, by combining both quantitative and qualitative description of collected data, the two can work together to ultimately determine what, if any TDEs occurred following the Vancouver 2010 Olympic Winter Games.

Data

In terms of the data required to answer the research question, the idea of using membership numbers of sport organizations was previously discussed. Given the difficulty to measure sport participation at its simplest form, that being unorganized leisure activity, these membership data coming from Skate Canada, will be key in answering the research questions. This was the data that was collected and analyzed using the method of descriptive statistics.

A panel of data is a data set "that follows a given sample of individuals over time, and this provides multiple observations on each individual in the sample" (Hsiao, 2003, p. 1). A panel of data provides an outline of information collected over a certain time period, directed towards a certain population. In this study, the panel of data will consist of membership rates from all Skate Canada regions, for years leading up to and following the Vancouver 2010 Olympic Winter Games. Relating Hsiao's (2003) definition to this study, the given sample will be the membership data per province/territory per year prior to and after the Vancouver Games.

Regardless of hosting or not, it is estimated (by the researcher) that when it is an Olympic year, participation rates increase, however, the year following the Games, participation rates start to decline. For example, in Canada, this study's hypothesis is that when the 2006 Olympic Winter Games were hosted in Italy, in 2005, winter sport participation rates increased; in 2006, these numbers would have reached a peak. This would be followed in 2007, by a decline and then a further decrease to its lowest point in 2008. The following year, in 2009, excitement would be generated, in anticipation for the 2010 Games in Vancouver, so participation rates would start to increase again. Then

in 2010, the membership rates would reach a peak, followed by 2011 with a decline and again, back to the lowest point in the Winter Olympic quadrennial in 2012. If drawn out on a scatter plot, it is expected to resemble a roller coaster, with many increases and decreases every four years, however with the largest increase occurring in 2010 because of the hosting of the Vancouver Games.

As previously stated, these data collected was from the 2003-2004 season until the most recent available information (2013-2014 season). The reason for starting from 2003 is that this was the year Vancouver was awarded the 2010 Games (Government of Canada, 2009). Also included in this time line is the 2006 Olympic Winter Games which took place in Torino, Italy (International Olympic Committee, 2013). While this research is designed to study the effect that the Vancouver Games had on Canada, it is of interest to see if any patterns emerge as other international Winter Olympic Games occur. Data from Winter Olympic years can show if there was an 'Olympic bump' when membership rates were affected, regardless of where the Games are hosted. These data can then be compared to the data prior to Vancouver 2010 Olympic Winter Games to see if there is a 'backyard' effect in hosting the Games.

Quantitative Data Collection

The main form of qualitative data collection for this study was through communications with Skate Canada employees. Within a few emails back and forth with the Skate Canada head office, the Member Services Director sent their membership statistics from each respective region across Canada. Chapter V will discuss the collected data.

Qualitative Method

As has been discussed, in measuring the TDE of hosting a Major Games, while the quantitative statistics does play a very important role, these numbers have a limit to representing the overall TDE. Some athletes may be enrolled in multiple clubs, both national club and provincial clubs, or even community clubs[3]. Membership numbers may not necessarily represent accurate sport participation levels. For example, being a member of a sport organization does not necessarily mean this member is active and participates regularly in a sport. Therefore, qualitative data also needs to be collected in order to understand some of the experiences by athletes, coaches, and administrators.

A strategy to further understand the effect that the Vancouver 2010 Olympic Winter Games had on the nation would to be to use a case study approach. Utilizing this qualitative approach allows for more in-depth data to be gathered and analyzed. First-hand accounts of the TDE can be noted and studied in order to understand the influence the Games had on a sport club. This is the smaller scale impact aspect which was discussed earlier. Gathering information from athletes, coaches, and administrators to determine where, if any, the TDE may have the greatest impact.

Furthermore, an important aspect of the TDE is the idea of inspiring "higher performance aspirations on the part of club members." (p. 17). This type of effect cannot be quantitatively measured, meaning qualitative data collection is also required. Therefore, in order to have a full scope understanding of the TDEs that may have influenced sport participation in Canada, qualitative data collection and analysis is also

[3] While CSOs provide P/TSOs and NSOs with membership statistics, some athletes may be accounted for twice. For example, if an athlete belonged to two separate clubs, one during the summer and one during the winter, but for the same sport, they may be counted twice. For example, a tennis player who plays outdoors in the summer and indoors in the winter could potentially be counted twice in terms of tennis participants in Canada.

necessary. The following will describe the research design and methods to collect and analyze qualitative data.

Case Study

According to Creswell (2012), Swanborn (2010), and Yin (2012) a case study is the investigation of a particular issue that is examined through one or more cases within a bounded system such as a setting or context. This bounded system can be any area of interest such as "an institution, a program, a responsibility, a collection, or a population" (Stake, 1978, p. 7). As long as there is a definitive boundary on the researched entity, a start and an end, then this can be considered a case and therefore appropriate for the case study methodology (Smeijsters & Aasgaard, 2005; Stake, 2008).

According to Stake (2005), there are three types of case studies. These are intrinsic case studies, instrumental case studies, and multiple or collective case studies. An intrinsic case study "is undertaken because, first and last, one wants better understanding of this particular case. It is not undertaken primarily because the case represents other cases or because it illustrates a particular trait or problem" (Stake, 2005, p. 445). Stake (2005) explains that with an intrinsic case study, there is not necessarily a desire to understand a generic phenomenon, rather one specific bounded system, be it a specific organization, event, or occurrence.

Next, Stake (2005) defines an instrumental case study as

> …a particular case … examined mainly to provide insight into an issue or to redraw a generalization. The case is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else. The case still is looked at in depth,

> its contexts scrutinized and its ordinary activities detailed, but all because this helps us pursue the external interest. (p. 445)

This is more of a typical case study trait as, according to Liamputtong (2013), case studies allow for transferability of themes, ideas, and theories between similar cases. This transferability in case studies is what allows for the generalization of ideas, to be passed on to one case, previously developed by studying another.

Finally, Stake (2005) discusses the idea of multiple or collective case study "when there is even less interest in one particular case, a number of cases may be studied jointly in order to investigate a phenomenon, population or general condition" (p. 445). Stake (2005) states that "they [multiple case studies] are chosen because it is believed that understanding them will lead to better understanding, and perhaps better theorizing, about a still larger collection of cases" (p. 446). This type of case study easily lends itself to Liamputtong's (2013) findings that case studies allow for transferability of themes, ideas, and theories between similar cases. This will be further discussed in the following section on research design.

Research Design

In understanding and determining the TDE of the Vancouver 2010 Olympic Winter Games on a smaller scale, there needs to be a form of transferability from this specific case to other similar ones. Since this case of figure skating is serving as a representative of other winter sports, findings may be transferable to other smaller, similar sport organizations. Again, Liamputtong (2013) notes that case studies allow for transferability of themes, ideas, and theories between similar cases. Therefore, using a case study

research design allows the findings of the study to be potentially relevant to other CSOs, in terms of needs and requirements to promote sport participation.

Since it is necessary to be able to transfer the findings, themes, ideas, and theories for the purpose of this study, it is best classified as a multiple/collective case study. Again, Stake (2005) states that "they [multiple case studies] are chosen because it is believed that understanding them will lead to better understanding, and perhaps better theorizing, about a still larger collection of cases" (p. 446). Therefore, because the purpose of using a case study method to explain the small scale TDE of hosting a Major Games, it will allow findings and statements to be made which can be transferred between CSOs and other small scale sport organizations.

Research Methods

Merriam (2009) finds that, while there are no set research methods in case studies, there are certain data collection strategies that are frequently used. Examples of these strategies include in-depth interviewing (Liamputtong, 2009; Yin, 2014). During the data collection and corresponding analysis stage, this strategy was utilized, as per the norm in case study research (Liamputtong, 2009; Yin, 2014). The following section will cover the forms of data collection which occurred in order to ensure confirmation of results[4].

In-Depth Interviews

According to Yin (1994), "interviews are also essential sources of case study information" (p. 84). Yin (1994) identifies three types of interview: open-ended, focused, and structured interview. Each type of interview has certain characteristics that can be beneficial in data collection, however for the purpose of this study; an open-ended

[4] This research was approved by Brock University's Research Ethics Board. This approval certificate can be seen in Appendix E.

interview is considered to be the best approach. As the most common type of case study interview, Yin (1994) explains that "you can ask key respondents for the facts of a matter as well as for the respondents' opinions about events" (p. 84). Tracy (2013) also explains that these open-ended interviews are also known as narrative interviews and are "relatively unstructured interviews that encourage the participant to tell stories rather than just answer questions" (p. 141).

Throughout the qualitative data collection period, open-ended interviews were used while discussing their own personal experiences in figure skating with athletes, coaches, and administrators, prior to, and following the Vancouver Olympic Games. This style of interview allows for a combination of formal facts as well as more, informal observations from both the researcher and research participant (Yin, 1994). In collecting data from research participants, the conducted interviews ranged from less than ten minutes, up to nearly 45 minutes in length.

As can be seen in Appendix A, there was a set interview guide that was used. For athletes, questions mainly revolved around their participation in the sport as well as their experiences in viewing the Olympic Games, the Vancouver 2010 Olympic Winter Games, or any other. These interviews and corresponding data created the content and some explanation of some of the resulting influences of hosting an Olympic Games. Furthermore, athletes were interviewed in order to see if they had changed their activity within the club. As previously discussed, the TDE also applies to those who have developed higher performance aspirations following the hosting of a Major Games (Hindson et al., 1994). Simply using quantitative statistics would not explain this aspect of the TDE; therefore, interviews with athletes were necessary in order to understand if

the Vancouver 2010 Olympic Winter Games may have resulted in an increased sense of motivation to succeed.

Coaches and club administrators were also interviewed, using a different interview guide, which can be seen in Appendix B, in order to understand some of the strategies (or lack thereof) that were implemented in order to leverage the Olympic Games. As has been discussed, a Major Games legacy does not come naturally, sport organizations must be proactive in leveraging the Games in order to foster sport participation (De Bosscher et al., 2013). Furthermore, Hindson et al. (1994) found that, in their study, only four CSOs utilized the Olympic Games as a source of marketing within their community. Therefore, interviews with coaches and club administrators were important to see if this was also the case for this study.

Sampling Strategies

The selected sample to collect research and conduct interviews with was reliant upon the quantitative data collected. It was the goal of the researcher to collect data from the Skate Canada region which experienced the highest increase in sport participation statistics over the ten-year data set. As will be discussed in Chapter V, the region of Alberta/Northwest Territories/Nunavut experienced the highest increase of any other Skate Canada region, over this time period. The purpose of selecting the area with the highest increase in sport participation statistics was to understand what the greatest result of a possible TDE may have been, and how it affected that specific region. Therefore, since Alberta/Northwest Territories/Nunavut experienced the highest growth in the number of figure skaters over the past ten seasons, athletes, coaches, and administrators from this region were interviewed.

28 interviews took place with 34 participants during a Skate Canada, STARSkate competition, near the end of the 2014-2015 season, just outside of Calgary, Alberta. 17 interviews took place with athletes, seven interviews were conducted with coaches, and five interviews were completed with administrators[5]. Athletes that were interviewed ranged from the age of ten up to a participant in her 40s. Most athletes, coaches, and administrators had been active in the sport and at their respective club prior to the Vancouver 2010 Olympic Games.

Data Analysis

As suggested by Liamputtong (2009), research and data analysis take place throughout the research process. An initial assessment of the NSO's annual reports was undertaken to become familiar with the organization's sport participation strategies (Liamputtong, 2009). Pulling out strategies from these annual reports helped shape the interview process and determine questions that need to be asked of research participants. Following data collection, the data were coded and charted to find consistent themes throughout the research participants' responses.

According to Tracy (2013), "coding refers to labeling and systematizing the data" (p. 186). Throughout the data collection process, the qualitative data was coded, resulting in the emergence of key themes and ideas. This process resulted in codes "words or short phrases that capture a 'summative, salient, essence-capturing, and/or evocative attribute for […] language-based or visual data'" (Tracy, 2013, p. 189).

[5] A total of 29 interviews took place: 17 interviews with athletes, 7 interviews with coaches and 5 interviews with administrators however it is important to note that five of the interviews took place with several participants simultaneously. Research participant demographics are provided in Appendix D.

In order to uncover these codes, each interview was audio recorded and then transcribed verbatim. Following each transcription an initial identification of codes was developed. Using NVivo 10 software, these transcripts were coded, and themes and subthemes emerged. Subsequently, a second read of the transcriptions included a thematic analysis in order to identify key points from the sentiments of the interview participants. Any content or language that referred to the Olympic Games, membership, or any personal effect that the Olympic Games had on research participants were of utmost importance. These codes were discussed and cross checked with the assistance of my research advisor in order to ensure proper coding and establishing credibility in the qualitative portion of the study. The following two chapters will discuss these quantitative and qualitative data that were collected and analyzed and its importance in analyzing the possible TDEs resulting from the hosting of the Vancouver 2010 Olympic Winter Games.

Chapter V: Quantitative Findings and Discussion

The first component of this mixed method study required the collection of figure skating membership data from all across Canada. These membership statistics will represent the participation rates in the sport of figure skating in the country. As previously discussed, figure skating is accessible to all, no matter the geographic region; therefore this will be the selected sport of study. Using statistics from Skate Canada, this chapter addresses the analysis of quantitative data and presents the results.

Skate Canada governs figure skating over 13 different regions nationally, in some instances splitting provinces up into smaller regions as well as combining select provinces and territories together, each having their own regional offices (Skate Canada, 2014). These 13 regional Skate Canada offices are British Columbia/Yukon, Alberta/Northwest Territories/Nunavut, Saskatchewan, Manitoba, Northern Ontario, Western Ontario, Central Ontario, Eastern Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland/Labrador (Skate Canada, 2014) [6]. These regional Skate Canada branches are responsible for overseeing skating clubs in their respective regions, as well as providing regional membership services and accounting.

As previously discussed, it is required for provincial/territorial sport organizations (P/TSOs) and national sport organizations (NSOs) to keep track of membership statistics in order to obtain Sport Canada funding (Sport Canada, 2013). Through correspondence with Skate Canada, membership data were obtained, from 2003, the year Vancouver was awarded the 2010 Olympic and Paralympic Winter Games (CBC News, 2003), up to the

[6] See Appendix C for the visual outline of these regions.

organization's most recent data, the 2012-2013 season. In this chapter, the findings based on Skate Canada membership data are discussed.

The first set of data depict the number of figure skaters in their respective region. In this data set, the raw number and percentage difference from one year to the next are presented. This is followed by the ten-year difference from the 2003-2004 season to the 2012-2013 season. Finally, the difference from the lowest number of skaters to the highest number of skaters in this ten-year range is included in this data set.

The second set of data consists of the same differences and comparisons; however this features the general population of each province/territory as well as the country as a whole. Because provincial/territorial population increases may play a role in the potential increase of activity participants, it is of interest to compare the fluctuations in both figure skating members and the general population to see if there are any patterns. All figure skating membership data are directly from Skate Canada (2014), while the population statistics are provided from Statistics Canada (2014). Both figure skating membership data and general population statistics can be seen in Tables 1-8 and a visual outline in Figure 3.

Canada

Throughout the ten year period, Canada experienced a small yearly average increase in the total number of figure skaters throughout the country. As evident in Table 1, in the first year of the data (2003-2004), Canada counted 172,288 figure skating club members. The next season represents the lowest total in the ten-year data, with membership numbers dropping by 1,426, or a decrease of 0.83% for a total of 170,862 figure skaters. While this is the lowest point in membership, the following season

featured the largest increase of any year in the data set, with the number of figure skaters increasing by 10,925, or a 6.20% rise, totaling 181,787 club members. With a total of 189,716 members, a 4.27% increase from the previous year, and a 10.46% increase from the 2004-2005 period, the 2006-2007 season would be the highest total in the ten-year data set. Subsequently in the years following, there was a decline in figure skaters, averaging a -0.70% drop, to a total of 181,884. Over the ten year period, the total number of figure skaters in Canada increased by 9,596 members representing an increase of 5.42%.

In comparing figure skating membership data with Canadian population data for the same time period, figure skating membership increased to just over half to that of the population increase. In the ten-year data set, starting in 2004, Canada has increased its population by a total of 9.56%. Every year, the Canadian population has grown, starting in 2004 with a total of 31,938,004 people, increasing by an average of 1.06% per year reaching its highest point in 2013, growing to a total of 35,154,279.

Between population data and figure skating membership data, there is little similarity in terms of patterns or percentage increase from year to year. While Canada has not experienced a decrease in population over the ten-year period of this study, there were five instances where the number of figure skaters decreased. Though the increase in figure skating membership is encouraging, the fact that the growth is just over half of the increase in general population demonstrates that a general population increase does not definitively equate to an increase in sport participants.

The 5.42% increase in figure skating membership across the country sets a benchmark for comparison between respective regions within Canada. The following

sections outlines the regions where increases in participation occurred in the years prior to the Vancouver 2010 Olympic Winter Games (Alberta/Nunavut/Northwest Territories, and Quebec) and address the results in relation to previous literature and theory. Further, as noted in previous literature (Bauman et al., 2003; Potwarka & Leatherdale, 2015; Potwarka & McCarville, 2010), the impact of Major Games is typically felt in geographic region closest to host city of the Games. Thus, a discussion of the results related to British Columbia/Yukon is presented.

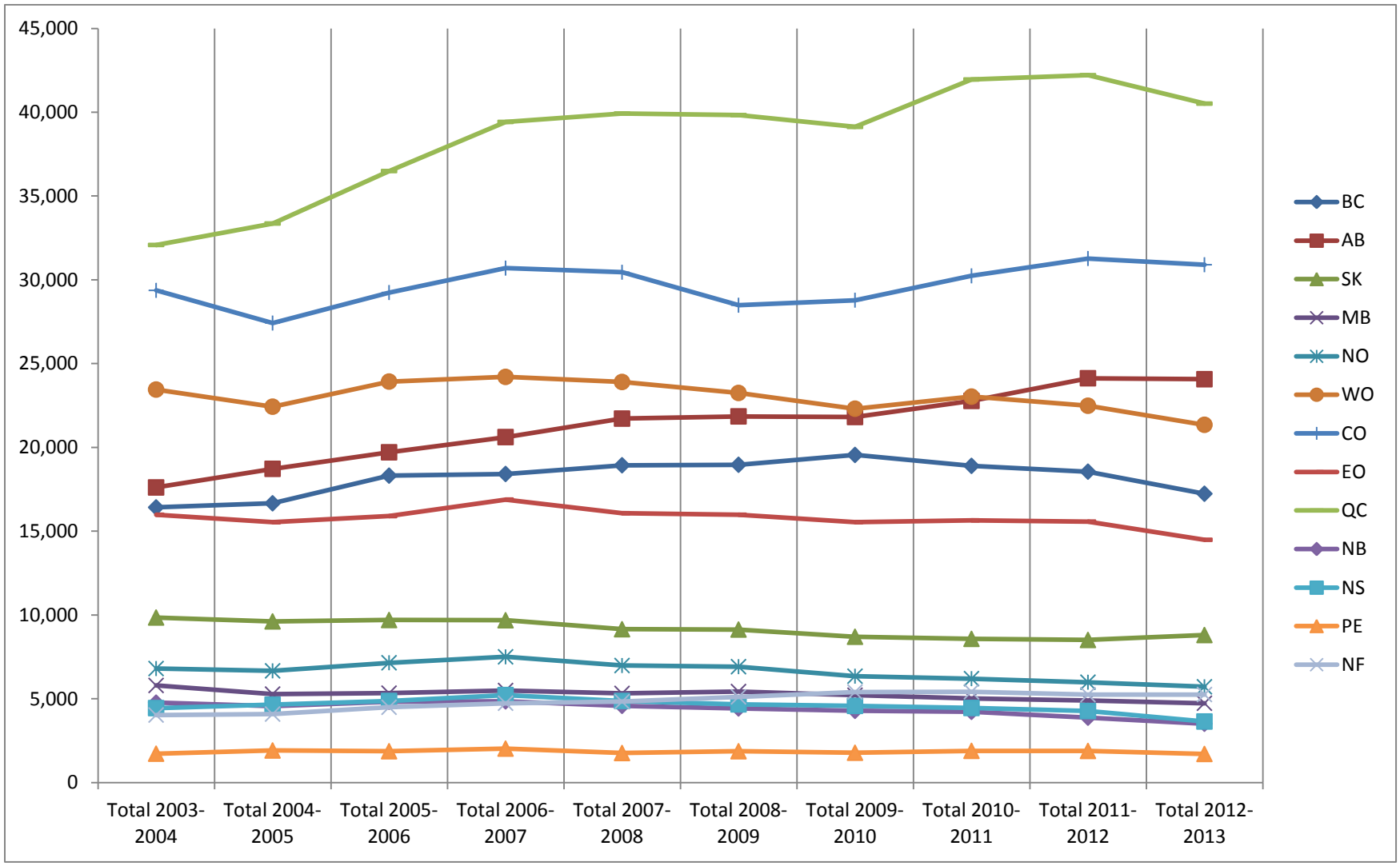
Table 1 – Figure Skating Statistics - Canada

Figure Skating	Total 2003-2004	Total 2004-2005	Total 2005-2006	Total 2006-2007	Total 2007-2008	Total 2008-2009	Total 2009-2010	Total 2010-2011	Total 2011-2012	Total 2012-2013	
BC	16,417	16,662	18,312	18,412	18,932	18,961	19,548	18,895	18,550	17,232	Highest Year
AB	17,608	18,718	19,706	20,613	21,716	21,848	21,812	22,771	24,124	24,067	Lowest Year
SK	9,847	9,615	9,697	9,682	9,148	9,129	8,699	8,571	8,507	8,799	
MB	5,791	5,276	5,332	5,490	5,315	5,428	5,210	5,015	4,888	4,731	
NO	6,800	6,663	7,146	7,500	6,980	6,913	6,343	6,198	5,985	5,712	
WO	23,449	22,428	23,926	24,205	23,902	23,247	22,308	23,029	22,483	21,346	
CO	29,368	27,418	29,240	30,696	30,451	28,483	28,783	30,236	31,269	30,899	
EO	15,978	15,531	15,897	16,884	16,070	15,978	15,533	15,642	15,570	14,484	
QC	32,078	33,358	36,488	39,419	39,921	39,828	39,125	41,952	42,208	40,513	
NB	4,765	4,551	4,818	4,842	4,575	4,418	4,276	4,217	3,869	3,506	
NS	4,440	4,645	4,869	5,218	4,866	4,662	4,572	4,448	4,267	3,640	
PE	1,721	1,912	1,865	2,023	1,759	1,865	1,777	1,890	1,884	1,704	
NF	4,026	4,085	4,491	4,732	4,826	5,110	5,401	5,420	5,242	5,251	
Canada	**172,288**	**170,862**	**181,787**	**189,716**	**188,461**	**185,870**	**183,387**	**188,284**	**188,846**	**181,884**	**Ten Year Change**
Raw Number Change		-1,426	10,925	7,929	-1,255	-2,591	-2,483	4,897	562	-6,962	+9,596
Percentage Change		-0.83%	6.20%	4.27%	-0.66%	-1.38%	-1.34%	2.64%	0.30%	-3.76%	+5.42%

Table 2 – General Population – Canada

Province	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
NL	517,402	514,315	510,584	509,039	511,543	516,729	521,972	525,037	526,874	528,194	Highest
PE	137,681	138,064	137,865	137,721	138,764	139,909	141,678	144,038	145,258	145,505	Lowest
NS	939,612	937,899	937,869	935,071	935,865	938,194	942,073	944,469	944,835	942,930	
NB	749,408	748,044	745,609	745,407	746,855	749,954	753,044	755,530	756,816	755,635	
QC	7,535,278	7,581,192	7,631,873	7,692,736	7,761,504	7,843,475	7,929,365	8,007,656	8,084,754	8,153,971	
ON	12,390,068	12,527,990	12,661,566	12,764,195	12,882,625	12,997,687	13,135,063	13,263,544	13,410,082	13,550,929	
MB	1,173,223	1,178,296	1,183,524	1,189,366	1,197,774	1,208,589	1,220,930	1,233,728	1,250,499	1,265,405	
SK	997,312	993,523	992,302	1,002,048	1,017,346	1,034,782	1,051,425	1,066,349	1,087,336	1,106,247	
AB	3,238,387	3,321,638	3,421,361	3,514,031	3,595,755	3,679,092	3,732,573	3,790,191	3,888,632	4,007,199	
BC	4,155,017	4,195,764	4,241,691	4,290,988	4,349,412	4,410,679	4,465,924	4,499,139	4,542,508	4,582,625	
YK	31,454	31,899	32,271	32,557	33,088	33,732	34,596	35,402	36,166	36,364	
NWT	43,305	43,401	43,178	43,374	43,350	43,149	43,278	43,501	43,639	43,841	
NV	29,857	30,339	30,812	31,395	31,892	32,600	33,353	34,196	34,729	35,434	**Ten Year Difference**
Canada	31,938,004	32,242,364	32,570,505	32,887,928	33,245,773	33,628,571	34,005,274	34,342,780	34,752,128	35,154,279	31,938,004 --> 35,154,279
Raw Numbers		304,360	328,141	317,423	357,845	382,798	376,703	337,506	409,348	402,151	3,216,275
% Change		0.95%	1.01%	0.97%	1.08%	1.14%	1.11%	0.99%	1.18%	1.15%	9.56%

Figure 3 – Figure Skating Statistics Visual Representation



British Columbia/Yukon

Table 3 outlines British Columbia/Yukon's figure skating club membership statistics. Starting with the 2003-2004 season, Skate Canada British Columbia/Yukon accounted for 16,417 club members. This was the lowest number of skaters in the region, however this season was only two years away from the largest increase in the decade. In the 2005-2006 season, the season leading up to and overlapping with the 2006 Turin Olympic Winter Games, was the largest jump in the decade, with the total number of skaters increasing by 1,650, a 9.44% growth from the previous season. The number of figure skaters increased every year, until the 2009-2010 season, just prior to and taking place during the 2010 Vancouver Olympic Winter Games. The 2009-2010 season would be the ten-year high, improving 17.41% from the first season (2003-2004), that being the lowest, with a total of 19,548 figure skaters in the region. In the following season, there was a decrease in the number of figure skaters, with the region losing 653 members, or a decrease of 3.40%, just one season following the Vancouver 2010 Olympic Winter Games. There was a consistent decrease leading to the most current data point, including the largest drop between the 2011-2012 and 2012-2013 season, losing 1,318 members, representing a 7.37% decrease. Throughout the data set, the region experienced a 4.84% growth, starting with 16,417 skaters in the 2003-2004 season, increasing 815 members to 17,232 in the 2012-2013 season.

Comparing these membership data with the general population of British Columbia and the Yukon, there was a steady increase in population, throughout the entire ten-year period. Starting in 2004, the region's combined population was 4,186,471, increasing every year, by an average of 1.09%. The region's ten-year high was in 2013

with a combined total of 4,618,989 people. This is an increase in population over these ten years of 432,518 people, which represents a 9.82% growth.

In comparing membership data with population, the population increased nominally while the fluctuations in figure skating membership were more pronounced. The numbers regarding the general population of the region steadily increased to surpass that of figure skaters. The region experienced a 9.82% increase in general population, while figure skater members rose only 4.84%. Similar to the country as a whole, this difference presents a discrepancy in the statistics. In comparing these regional statistics with national figure skating membership, the increase in the British Columbia/Yukon region is similar to that of Canada's, specifically, Canada's membership increased by 5.42% while British Columbia/Yukon's membership increased by 4.84%.

This region is of particular interest because there is literature that finds that the locations that are closer to the epicentre of a Major Games are most likely to experience a boost in sport participation (Bauman et al., 2003). According to Bauman et al. (2003), people who live closer to the epicentre of these Major Games are more likely to take up sport, or at least their intention to take up sport increases, compared to those who live further away from the Games' venues. One explanation for this trend may be because of "improved access to sport and/or recreation infrastructure post-event, and from the sense of community euphoria among host region residents" (Potwarka & McCarville, 2010, p. 185). Potwarka and Leatherdale (2015) found an increase in leisure-time physical activity, this being more generalized, unorganized sport, in areas closest to the Vancouver Olympic venues. This supports claims made by Potwarka and McCarville (2010), that

with increased access to physical activity infrastructure, residents have more opportunities to increase their leisure-time physical activity.

Based on these findings from Potwarka and colleagues, one could have expected that the British Columbia/Yukon region would have experienced the highest increase in figure skating participation rates following the Vancouver 2010 Olympic Winter Games, however this was not the case. Throughout the ten-year data set, in British Columbia/Yukon, the point with the highest number of figure skater members occurred in the 2009-2010 season (an increase of 3.05% relative to the previous year), the season leading up to and occurring during the Olympic Winter Games. According to Potwarka and McCarville (2010), this increase in membership may be explained by the community euphoria among host region residents; however in this case, the membership increase occurred prior to the Vancouver Olympic Winter Games and was not sustained following the Games. More specifically, in the 2010-2011 season, figure skating membership numbers dropped by 3.40% in British Columbia/Yukon. This finding contradicts results of Bauman et al. (2003) and Potwarka and Leatherdale (2015) in that the region that included the epicentre of the Games did not experience a growth in participation following the event. Furthermore, participation rates in British Columbia/Yukon continued to drop following the Vancouver 2010 Olympic Winter Games, by an average of 4.20% per season.

Although Potwarka and Leatherdale (2015) suggest that the TDEs "occur, but appear highly localised in regions that hosted events" (p. 12), their study examined unorganized sport. In the case of organized sport, specifically figure skating within

Canada, there were no patterns of increased and sustained participation in the location closest to the epicentre of the Games.

Table 3 – Figure Skating Statistics – British Columbia

Figure Skating Members	Total 2003-2004	Total 2004-2005	Total 2005-2006	Total 2006-2007	Total 2007-2008	Total 2008-2009	Total 2009-2010	Total 2010-2011	Total 2011-2012	Total 2012-2013	Ten Year Difference from 03/04 - 12/13
Raw Number	16,417	16,662	18,312	18,412	18,932	18,961	19,548	18,895	18,550	17,232	16,417 --> 17,232
Raw Number Change		245	1,650	100	520	29	587	-653	-345	-1,318	815
Percentage Change		1.48%	9.44%	0.54%	2.78%	0.15%	3.05%	-3.40%	-1.84%	-7.37%	4.84%

Table 4 – General Population – British Columbia

General Population	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Ten Year Difference 03/04 - 12/13
Raw Number - BC	4,155,017	4,195,764	4,241,691	4,290,988	4,349,412	4,410,679	4,465,924	4,499,139	4,542,508	4,582,625	4,155,017 --> 4,582,625
Raw Number - Yukon	31,454	31,899	32,271	32,557	33,088	33,732	34,596	35,402	36,166	36,364	31,454 -- >36,364
Total	4,186,471	4,227,663	4,273,962	4,323,545	4,382,500	4,444,411	4,500,520	4,534,541	4,578,674	4,618,989	4,186,471 --> 4,618,989
Raw Number Change		41,192	46,299	49,583	58,955	61,911	56,109	34,021	44,133	40,315	432,518
Percentage Change		0.98%	1.09%	1.15%	1.35%	1.40%	1.25%	0.75%	0.97%	0.88%	9.82%

Alberta/Northwest Territories/Nunavut

Similar to Skate Canada's regional combination of British Columbia and the Yukon, the province of Alberta, along with the Northwest Territories and Nunavut are combined into one region. This region's membership statistics are presented in Table 5. Beginning with the 2003-2004 season, Skate Canada Alberta/Northwest Territories/Nunavut had 17,608 figure skating club members. Of the ten-year data set, this was the region's lowest point. The region's highest number of members occurred in the 2011-2012 season, two skating seasons following the Vancouver 2010 Olympic Winter Games. In the 2009-2010 season, just prior to and during the Vancouver 2010 Olympic Winter Games, there was a slight decrease in figure skaters, with the region losing 36 members, or a -0.15% drop. There were no major fluctuations in membership rates in comparison from one year to the next throughout the ten years. Averaging a 3.47% increase in membership per year, the number of figure skaters in the Alberta/Northwest Territories/Nunavut region grew 31%, starting with 17,608 for the 2003-2004 season, and ending with 24,067 in the 2012-2013 season, an increase of 6,459 participants.

Comparing these data with the general population in the region, there was also a steady increase in people. In 2004, the three areas' combined general population was 3,311,549. This region averaged an increase in population of 86,103 people per year or a 2.34% increase per year, ending with a population of 4,086,474. This represents an increase of 774,925 people and a total increase of 20.95% over the ten year.

With the increase in figure skating membership being 10% higher than the general population's increase, the difference between the two may suggest that the rise in general

population is not the sole reason to explain the increase in figure skaters. While membership rates and general population grew at a somewhat similar rate per year, just above a 1% difference, the ten-year cumulative result is enough to suggest that there are other factors which may contribute to the higher increase in skaters than people. Such factors will be discussed in Chapter VII. At a 31% increase over ten years, Alberta/Northwest Territories/Nunavut by far surpasses the national figure skating membership of a 5.42% increase over the same time frame.

A potential explanation for this large increase in this region may be related to the existence of facilities that are already established. As discussed in Chapter III, an example of a region in Canada that has directly benefitted from hosting previous Olympic Winter Games is Calgary, Alberta. Because of the high performance training facilities centred in Calgary, including the WinSport Canada Olympic Park complex, the physical legacy left by the Calgary 1988 Olympic Winter Games (WinSport Canada, 2014), the existence of these facilities could explain why such an increase of figure skating participants occurred. With the continued use of many of the Olympic venues available to the public, this Olympic centre has provided residents with an opportunity to be active on some of the same surfaces of Olympic champions (WinSport Canada, 2014).

Coalter (2004) and Ritchie (2000) both found that in order to for the community to benefit from the physical venues left by an Olympic Games, such centres need to be opened for public use. This WinSport Canada Olympic Park facility that is operating in Calgary is an example that confirms Coalter (2004) and Ritchie's (2000) findings. According to WinSport Canada (2014), the Canada Olympic Park "is host to almost 300,000 ski and snowboard visitors each year" (para. 3). Furthermore, with four skating

rinks for public use, there are even more options for residents to be active at this complex (WinSport Canada, 2015). This may explain why this region has experienced such an increase, because of the high quality facilities and elite level training centres available to the public.

Table 5 – Figure Skating Statistics – Alberta/Nunavut/Northwest Territories

Figure Skating Members	Total 2003-2004	Total 2004-2005	Total 2005-2006	Total 2006-2007	Total 2007-2008	Total 2008-2009	Total 2009-2010	Total 2010-2011	Total 2011-2012	Total 2012-2013	Ten Year Difference from 03/04 - 12/13
Raw Number	17,608	18,718	19,706	20,613	21,716	21,848	21,812	22,771	24,124	24,067	17,608 --> 24,067
Raw Number Change		1,110	988	907	1,103	132	-36	959	1,353	-57	6,459
Percentage Change		6.11%	5.14%	4.50%	5.21%	0.61%	-0.15%	4.30%	5.77%	-0.24%	31%

Table 6 – General Population – Alberta/Nunavut/Northwest Territories

General Population	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Ten Year Difference 03/04 - 12/13
Raw Number - AB	3,238,387	3,321,638	3,421,361	3,514,031	3,595,755	3,679,092	3,732,573	3,790,191	3,888,632	4,007,199	3,238,387--> 4,007,199
Raw Number - NWT	43,305	43,401	43,178	43,374	43,350	43,149	43,278	43,501	43,639	43,841	43,305 --> 43,841
Raw Number - NVT	29,857	30,339	30,812	31,395	31,892	32,600	33,353	34,196	34,729	35,434	29,857 --> 35,434
Total	3,311,549	3,395,378	3,452,173	3,588,800	3,670,997	3,711,692	3,809,204	3,867,888	3,967,000	4,086,474	3,311,549--> 4,086,474
Raw Number Change		83,829	56,795	136,627	82,197	40,695	97,512	58,684	99,112	119,474	774,925
Percentage Change		2.50%	1.66%	3.88%	2.26%	1.10%	2.59%	1.53%	2.53%	2.97%	20.95%

Quebec

Quebec has the third highest percentage increase of figure skaters in the ten years of all regions. Averaging a 2.59% increase per year, with only three years of decreases, the province's figure skating population increased by a total of 8,435, resulting in a 23.24% raise. Of all the years, the largest increase occurred during the 2005-2006 season, with membership increasing by 8.96% over the previous 2004-2005 campaign. In the season following the Vancouver 2010 Olympic Winter Games, there was a 6.97% increase in membership, the third highest increase in Quebec's data. Based on the number of members, Quebec's figure skating membership had the highest increase of any region over the ten years with an 8,435 growth in members.

In terms of the general population, the province of Quebec experienced an annual increase. Averaging an increase of 0.88% per year, the province grew by 618,693 people, a growth of 7.89% over the ten years. Similar to many of the other provinces and territories, the general population's lowest point in Quebec was in the first year of the data, while the general population's highest point was in the most recent year of data. This 7.89% ten-year increase ranks eight highest in the country behind British Columbia/Yukon, Alberta/Northwest Territories/Nunavut, Saskatchewan, Northern Ontario, Western Ontario, Central Ontario, and Eastern Ontario.

While comparing the two data sets, it is evident that the increase in figure skaters far surpasses the increase in general population. The patterns between Quebec's figure skating membership and population are very similar to that of Central Ontario's, in terms of the highest and lowest points. For both general population and figure skating members, the first season of record in the data set is the lowest total. In terms of the

possibility of the general population increase playing a role in the increase of figure skaters, this may be a reason; however since the figure skating increase is more than three times that of the population, there is a discrepancy here. For the comparison between the national rate and regional rate of figure skating membership, Quebec's increase surpasses that of Canada's by more than four times.

There are several why the region of Quebec hosts the highest amount of figure skaters of any region, as well as why the province experienced the largest single season growth of any region, leading up to and following the Vancouver 2010 Olympic Winter Games. The first reason is because of the population in the region. Quebec is the second highest populated Skate Canada region, as Ontario is divided into four separate areas. While Central Ontario has over a million additional residents to that of Quebec, there are 96 registered skating clubs in Central Ontario (Skate Canada Central Ontario, 2015), while there are 243 registered skating clubs in Quebec (Skate Canada Quebec, 2013). With nearly triple the amount of venues for individuals to attend, this is likely why there are more figure skating participants in the Quebec region, compared to the Central Ontario region, despite a smaller population.

One of the most inspirational performances from the 2010 Vancouver Olympic Winter Games was the bronze medal won by Joannie Rochette's (Canadian Olympic Committee, 2013). Rochette, a Montreal, Quebec native was Canada's best hope for a ladies' figure skating medal in 2010, heading into the Vancouver Games as the reigning World silver medalist (Canadian Olympic Committee, 2014). Just two days before her scheduled competition, her mother suddenly passed away (Canadian Olympic Committee, 2014). Despite this loss, she decided to compete where "[w]ith the entire

country behind her, she performed a brilliant short program. Two days later her free skate locked up the medal" (Canadian Olympic Committee, 2014, para. 2). This inspiring performance led her to become the closing ceremonies flag bearer for the Canada (Canadian Olympic Committee, 2013).

With the country watching Rochette's inspirational performance in Vancouver, this may have been one of the influencing factors which drive people to become active in the sport. In her home province of Quebec, figure skating membership rates grew by 6.97%, between the 2009-2010 and 2010-2011 seasons. This was the third highest increase between any seasons in the ten year data set in Quebec. This increase also led to the 2011-2012 season, this being the highest point of figure skating members throughout the ten year data set.

This inspirational performance by Rochette may have inspired people to become active in figure skating. People who lost someone close in their life may have become inspired to try out the sport because of the strength and perseverance Rochette showed during the Vancouver Games. Based on the data, the success and inspiration that Rochette's performance may explain the increase in figure skating membership from the 2009-2010 season to the 2010-2011 season in Quebec.

Table 7 – Figure Skating Statistics – Quebec

Figure Skating Members	Total 2003-2004	Total 2004-2005	Total 2005-2006	Total 2006-2007	Total 2007-2008	Total 2008-2009	Total 2009-2010	Total 2010-2011	Total 2011-2012	Total 2012-2013	Ten Year Difference from 03/04 - 12/13
Raw Number	32,078	33,358	36,488	39,419	39,921	39,828	39,125	41,952	42,208	40,513	32,078 --> 40,513
Raw Number Change		1,280	3,130	2,931	502	-93	-703	2,827	256	-1,695	8,435
Percentage Change		3.91%	8.96%	7.72%	1.27%	-0.23%	-1.78%	6.97%	0.61%	-4.10%	23.24%

Table 8 – General Population – Quebec

General Population	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Ten Year Difference 03/04 - 12/13
Raw Number	7,535,278	7,581,192	7,631,873	7,692,736	7,761,504	7,843,475	7,929,365	8,007,656	8,084,754	8,153,971	7,535,278 --> 8,153,971
Raw Number Change		45,914	50,681	60,863	68,768	81,971	85,890	78,291	77,098	69,217	618,693
Percentage Change		0.61%	0.67%	0.79%	0.89%	1.05%	1.09%	0.98%	0.96%	0.85%	7.89%

Analysis

After describing the patterns in figure skating membership from each region of interest and the country as a whole, the following paragraphs address general patterns, possible athlete performance influences, and the effect that the 2006 and 2010 Olympic Winter Games may have played on the figure skating membership.

Patterns

Throughout the data, for each respective region as well as the country as a whole, there are a few patterns that have emerged. As can be seen in Table 1, there is seemingly a pattern in terms of both the highest point of figure skating membership in the ten-year period for each respective region, as well as the lowest total. In Table 1 are the figure skating membership rates for every region as well as the nation as a whole. In this table, the season with the highest number of figure skaters in the ten-year period is highlighted in green, while the season with the fewest registered figure skaters is highlighted in yellow. The following section will discuss several patterns that have emerged from the data.

One of the patterns that has emerged from the data is related to the 2006-2007 season. As evident from Table 1, the 2006-2007 season had the highest point in the ten-year data set for six of the thirteen Skate Canada regions, as well as the country as a whole. This period represents the season following the 2006 Turin Olympic Winter Games. While Canada only won one medal in figure skating during the 2006 Olympic Winter Games, a bronze in the men's competition by Jeffrey Buttle (Canadian Olympic Committee, 2014), the following year was the highest point in the ten-year period for figure skating membership statistics. While this performance in Italy may not have been

as successful as Team Canada's success in several disciplines of figure skating during the Vancouver 2010 Olympic Winter Games, almost half of Skate Canada's regions experienced their ten-year high during this season. Even though Canada won more medals in figure skating in Vancouver (Canadian Olympic Committee, 2013), just one region experienced its ten-year high during 2010-2011, the season following the 2010 Vancouver Olympic Winter Games.

In terms of comparing these results to previous research, De Bosscher et al. (2013) found that there is little correlation between elite level success in the form of winning Olympic medals, and an increase in that sport's participation in the medalist's home country. This finding by De Bosscher et al. (2013) is similar to previous findings as well in that there is no necessary connection between podium performances and an increased sense of desire to become active in that sport (De Bosscher & van Bottenburg, 2011; Hanstad & Skille, 2010; Stewart & Nicholson, 2004; van Bottenburg, 2001; van Bottenburg, 2002). These studies confirm the findings of this research, in that it should not necessarily have been expected for Canadians to become more active in figure skating after the Vancouver 2010 Olympic Winter Games, compared to the Turin 2006 Olympic Winter Games, based solely on the number of medals won (De Bosscher et al., 2013). Many regions in Canada, including the country as a whole, experienced their ten year high after the Turin 2006 Olympic Winter Games where Canadian figure skaters won less medals than in the Vancouver 2010 Olympic Winter Games. This confirms the findings of De Bosscher et al. (2013), De Bosscher and van Bottenburg (2011), Hanstad and Skille (2010), Stewart and Nicholson (2004), van Bottenburg (2001), and van Bottenburg

(2002) in that Olympic medals won do not necessarily lead to increased sport participation.

Another pattern that emerges is the ten-year low point for figure skating membership throughout Canada. While the 2004-2005 season was nationally the lowest of the ten-year data set, the 2012-2013 season was the most commonly lowest populated season per province for sport participants. Manitoba, Northern Ontario, Western Ontario, Eastern Ontario, New Brunswick, Nova Scotia, and Prince Edward Island all experienced their respective region's low point in figure skating participation in the 2012-2013 season. Being three years after the Vancouver 2010 Olympic Winter Games, people may have lost interest in the sport after trying it for a few seasons.

These findings are similar to what have been reported in the United Kingdom following the hosting of the London 2012 Olympic Games. As discussed in Chapter III, the initial findings were that sport participation in the United Kingdom had increased leading up to the London Games, compared to numbers, just a year prior to hosting (Hart, 2012). This was then followed by a reported decrease in sport participation statistics, the years following the London 2012 Olympic Summer Games (Gibson, 2013; London24, 2013; Sky Sports, 2013).

Furthermore, in their research, Murphy and Bauman (2007) found that there was no change in sport participation rates in Australia following the Sydney 2000 Olympic Games. Similar to the Vancouver 2010 Olympic Winter Games, where figure skating participation rates rose leading up to the Games and became stagnant and dropped off after the Games, Australia experienced the same phenomenon (Murphy & Bauman, 2007). According to Murphy and Bauman (2007), "Participation rates, when compared

with the same months the previous year, were lower in 2000 than in 1999 and 1998" (p. 194). In addition, Murphy and Bauman (2007) noted that "data collected following the 2002 Manchester Commonwealth Games also demonstrated no impact on participation in sports activities" (p.195). These findings from previous research and journalistic reports demonstrate parallels to what occurred in Manitoba, Northern Ontario, Western Ontario, Eastern Ontario, New Brunswick, Nova Scotia, Prince Edward Island, as well as Canada as a whole, following the Vancouver 2010 Olympic Winter Games.

Olympic Winter Games

Another pattern which emerges from the data is the percentage changes from the season prior to an Olympic Winter Games to the season following the Games. While the largest cumulative increase took place between the 2004-2005 and 2005-2006 seasons, the next two largest percentage increases took place in seasons following an Olympic Winter Games. For the 2006-2007 season, following the 2006 Olympic Winter Games in Turin, figure skating membership increased by 4.27% from the previous 2005-2006 season as a country. In the 2010-2011 season, the one following the Vancouver 2010 Olympic Winter Games, the figure skating population in Canada grew by 2.64%, the third highest increase out of just four yearly increases in the ten-year period.

These statistics may represent support for the Olympic bump idea earlier discussed in Chapter III in that the Olympic Games have the potential to increase sport participation statistics, regardless of where they are held. Although these increases may not have necessarily been a major jump, the fact that two of the four increases (with one increase being just 0.30%) in figure skating membership rates occurred in the season following an Olympic Winter Games gives more traction to the idea of an Olympic bump. While a

more in-depth analysis with additional years of data may possibly result in the further development of patterns for post-Olympic seasons' membership rates, this study was to determine the possible effects that hosting may have had on participation rates in the host nation including the experiences of the athletes, coaches, and sport administrators to ensure data from multiple perspectives.

While these statistics provide some insights into figure skating membership over the ten-year period, they do not tell the entire story. During the process of analyzing these statistics, several questions posed by Potwarka and McCarville (2010) identified in Chapter III have been answered for this specific sport. Both "Where (i.e., in which geographical regions) will the Olympic Games influence host residents' participation rates?" as well as "When (i.e., what time either before, during, or after the event) will the Olympic Games influence host residents' participation rates?" can be answered in regards to figure skating and the Vancouver 2010 Olympic Winter Games (Potwarka & McCarville, 2010, p. 182). To answer the remaining three questions of "Who will alter their activity levels in response to the Olympic Games?", "What activities will the Olympic Games influence/alter among host residents?", and "Why might the Olympic Games make host residents more active?" (Potwarka & McCarville, 2010, p. 182), qualitative data need to be collected to gain a better understanding and context of membership fluctuations.

In order to understand why these membership fluctuations occurred, it was deemed necessary to interview figure skating administrators as well as athletes themselves. These data are used to enhance our understanding of how figure skating clubs and governing bodies were able to leverage the Vancouver 2010 Olympic Winter Games to increase

participation in figure skating. The following chapter addresses the qualitative results of this study as well as bridging the gap between the quantitative and qualitative findings.

Chapter VI: Qualitative Findings and Discussion

Following the quantitative analysis of the figure skating membership statistics from Canada and each respective region, qualitative data were required in order to provide context and further understanding to these numbers, therefore relating to, and answering, the second research question. As discussed in Chapter III, interviews took place at a skating competition in Alberta, Canada, with skaters of all ages, coaches, and club administrators. The purpose of these interviews were to understand the role that hosting the Vancouver 2010 Olympic Winter Games had on the athletes', coaches', and administrators' experiences in figure skating. As stated by Tracy (2013), qualitative data can "provide insight into cultural activities that might otherwise be missed in structured surveys or experiments" (p. 5), or in the case of this study, figure skating membership data. Using a variety of questions, between experience questions, factual issues, tour questions, timeline questions, and hypothetical questions (Tracy, 2013, pp. 147-148), the common themes and ideas from participants were used to understand some of the trickle-down effects (TDE) of hosting the Vancouver 2010 Olympic Winter Games.

After verbatim transcription of the 28 interviews was completed, member checking of these transcriptions with research participants was undertaken where two participants made some slight changes, mainly in spelling of names. Once the transcripts were reviewed and revised, NVivo 10 qualitative data analysis software was used to code the data based on several themes. Through this data analysis, five themes were developed and have been identified as 'influences' on sport participation, due to the effect that each one can have on an athlete, coach, and/or administrator. These five influences are:

Olympic Influences, Organizational Influences, Personal Influences, Role Model Influences, and Restrictive Influences.

From these data, these five main themes or influences were uncovered in the analysis which categorize all of the data including primary, secondary, and tertiary subthemes. These levels of subthemes act as a categorical distinction from one another, while falling under the umbrella of a more general idea. A primary subtheme is developed from the original theme, a secondary subtheme is developed from the primary subtheme, and tertiary subtheme is developed from the secondary subtheme. For example, as will be discussed further in the chapter, Canadian Athletes served as role models to many of the research participants. The idea of 'Canadian Athletes' influencing people to take up the sport of figure skating was developed as a tertiary subtheme from the secondary subtheme of 'Role Model'. This secondary subtheme of 'Role Model' was developed from the primary subtheme of 'Athletes', stemming from the original theme of 'Role Model Influences.'

Throughout the data collection and resulting data analysis, each of these five sport participation influences played a role in a skater's participation, as well as the coaches' and administrators' role in the respective club. As much as the hosting the Vancouver 2010 Olympic Winter Games may have had an impact on athletes, coaches and administrators experienced many of the same influences, either from a direct effect or vicariously through their club's athletes. The following chapter will address these influences and discuss several key quotations from research participants in relation to the specific influencer. As evident in Tables 9-13, some notable quotations are presented which stood out during the data collection, in regards to each specific theme.

Olympic Influences

The first of the five influences which was uncovered during data analysis were 'Olympic Influences.' These influences pertain to the general idea of an Olympic Games, either domestic or international playing a role in someone's sport participation and a coach's and/or administrator's role in fostering the activity. Statements from those participants who discussed the influence of an Olympic Games to take up a sport, or participate more frequently in the sport, were identified under this theme. As evident in Table 9, 96% of participants discussed the Olympic Games in some form during the interview process, while making 151 references to this specific influence. These 151 references combine all of the primary and secondary subthemes which emerged in the 'Olympic Influences' theme.

Stemming from the 'Olympic Influences' theme, six subthemes were identified, either as a primary or secondary subtheme. These subthemes are as follows[7] - Olympic Results*, Athlete Success**, Hosting**, Memories**, Patriotic*, and Canadian = Skate**. In each of these corresponding subthemes, thoughts were discussed which were deemed significant in trying to answer the research questions. The following section will address all of these subthemes and their relation to the overarching 'Olympic Influences' theme presented in the data.

Olympic Results*

The most commonly discussed primary subtheme coming from the data, under the 'Olympic Influences' theme, was thoughts about the Olympic Games themselves. In this subtheme, research participants discussed the general effect the Olympic Games had on

[7] *= Primary Subtheme, ** = Secondary Subtheme

themselves as well as some thoughts about the competition. Similar to the 'Olympic Influences' theme, 96% of respondents in some way discussed the Olympic Games, with 138 quotations. Through these references, the secondary subthemes of 'Athlete Success', 'Hosting', and 'Memories' were developed after condensing the data, however there were some notable quotations which addressed general thoughts regarding the Olympic Games.

As stated by **Participant 150308_002** in regards to being asked about the difference between the Vancouver 2010 Olympic Winter Games and other Olympic Games in terms of influencing people to become active, he stated "*It [hosting a Major Games] encourages national pride, it encourages you to get out there and want to try.*" This quotation confirms Grix and Carmichael's (2012) findings in that national pride is stimulated as a result of hosting an Olympic Games and this increased patriotic respect may inspire people to become more active. For example, according to Grix and Carmichael's (2012) study, a Canadian citizen would feel more patriotic following the Vancouver 2010 Olympic Winter Games compared to the Turin 2006 Olympic Winter Games held in Italy or the Sochi 2014 Olympic Winter Games held in Russia.

Furthermore, according to **Participant 150306_001 – IP** (Interviewee Parent), "*The Olympics can be very remote.*" When an Olympic Games has this type of remote, removed feeling, it is tougher to stimulate national pride at the same level as if it were hosted in the domestic country (Grix & Carmichael, 2012). This quotation further reinforces Grix and Carmichael (2012), as well as **Participant 150308_006** in that if an Olympic Games is not hosted in the resident's country, it may be tougher to attach a sense of pride towards, especially compared to a domestic Olympic Games. While

nationalistic pride may be stimulated during any international competition, this pride can be further developed as a legacy of a hosted competition (Homma & Masumoto, 2013). As such, the sense of togetherness and national pride which is developed from hosting an Olympic or other Major Games may influence people to become active**.**

This primary subtheme lead into the following three Olympic Results subthemes – Hosting**, Athlete Success**, and Memories**. Each of these secondary subthemes have played an important role in many of the research participants' sport participation. While some of these subthemes may have a clear, direct influence for some people's sport participation, others have a more indirect effect. The following section addressed each of these secondary subthemes and how each has impacted the participants' role in figure skating, either as an athlete, coach, or administrator.

Hosting**

The first secondary subtheme identified in the data during the analysis phase, was that of 'Hosting'. The data used in this section were derived from research participants discussing the effect that hosting an Olympic Games may have had on their participation, drive, and passion towards the sport of figure skating. 79% of research participants discussed this idea, while 76 specific references were found in the data. This specific section provides direct context and data in answering this study's first research question: 'What effect(s) did hosting the Vancouver 2010 Olympic Winter Games have on sport participation in Canada?'

As stated by **Participant 150307_004** in regards to hosting an Olympic Games, "*people [who] usually aren't involved and don't watch the Olympics did tune in and watch the Olympics because they were in Canada.*" This raises an interesting point as

this confirms De Bosscher et al.'s (2013) findings in that "sport with higher media coverage may be more likely to be taken up by the community" (p. 333). For those who do not commonly follow international sport, and may only be doing so during the time of a hosted event, there is a higher likelihood of these individuals becoming active in sport compared to when an Olympic Games is held in another country (Mansfield et al., 2010). This is confirmation of the Festival Effect presented by Mansfield et al. (2010), in that those who may be disinterested in sport may become active because of a Major Games such as the Olympic Games would "create in people a 'desire, if not urge to participate in some way', and this 'desire is stronger if the event is perceived to be bigger than and beyond sport'" (p. 421). A quotation from **Participant 150309_001** highlights this point when he states "*I think those involved in skating were inspired in Sochi with Patrick [Chan] and the team medal, for sure. But I don't think the general public [was]*." Similar to **Participant 150307_004**, **Participant 150309_001** explains that, for those who are already active in the sport, the success of a domestic elite athlete, competing on an international level, can play a role in influencing a current participant's passion and drive towards figure skating. This, however appears to be only applicable for those who are already active in the sport. For those who are not interested or currently active in the sport, there is likely little to no effect of a domestic athlete doing well in international competition. Therefore, combining the sentiments from **Participants 150307_004** and **150309_001**, combined with the Festival Effect presented by Mansfield et al. (2010), while athletic achievement can act as an influencer to those already active in sport, hosting a Major Games is more likely to draw people who were inactive, compared to an Olympic Games held in another country.

Athlete Success**

Canadian figure skaters have been some of the world's most successful skaters over the past two Olympic Winter Games, in Vancouver and Sochi. In the Vancouver 2010 Olympic Winter Games, Canadian athletes Tessa Virtue and Scott Moir won a gold medal in the ice dance competition and Joannie Rochette won a bronze medal in the women's category (Canadian Olympic Committee, 2013). Furthermore, in the Sochi 2014 Olympic Winter Games, Canadian athletes were near the top of the podium again with Patrick Chan winning a silver medal in the men's category, Virtue and Moir winning a silver medal in ice dance, and finally the Canadian team winning a silver medal in the newly established team event (Canadian Olympic Committee, 2015). The success of these athletes on either home soil or abroad can serve as inspiration to those already active in the sport to become even more active as suggested by Mansfield et al. (2010), Weed (2009), and Frawley et al. (2009). This subtheme was discussed by 85% of participants with 57 references to athletic achievement influencing their sport participation. As stated by **Participant 150309_001**, "*I think the skaters are performing well and getting medals and they're higher profile, it definitely brings figure skating into the limelight in the country and it definitely gets kids excited about figure skating and promotes more skating*." Similar to the thoughts in regards to hosting, when exposure to a sport is increased, there is a higher likelihood that people may take up this sport (De Bosscher et al., 2013). Since Canadian athletes were successful at the Vancouver and Sochi Olympic Winter Games, the exposure of Canadian athletes increased in popular media, during that time (Canadian Newsstand Major Dailies, 2015). Using Canadian Newsstand Major Dailies, which is a Canadian research database that keeps records on

articles from major newspapers across the country, there is a clear increase in media coverage for these athletes as they are successful, outlined in the following paragraph.

For example, searching 'Tessa Virtue Scott Moir' in the database, there is a drastic increase in the number of articles written about the pair in an Olympic year compared to a non-Olympic year, and even from 2010 when they won a gold medal compared to 2014 where they won silver. Starting in 2008, there were 185 records using the keywords "Tessa Virtue Scott Moir" followed with 288 records in 2009, jumping to 642 in 2010, down to 257 records in 2011, 227 records in 2012, 189 records in 2013, and finally up to 332 records in 2014 (Canadian Newsstand Major Dailies, 2015). Again, as discussed by De Bosscher et al. (2013), "sport with higher media coverage may be more likely to be taken up by the community" (p. 333). Therefore the claim can be made that in the years of the 2010 and 2014 Olympic Winter Games, because of the increase in media coverage due to the success of these specific Canadian athletes, sport participation would increase. As supported by the quantitative statistics, figure skating participation increased the year following the Vancouver 2010 Olympic Winter Games, but immediately fell the second season after the Games (Skate Canada, 2014).

Furthermore **Participant 150309_001** responded, in regards to a hypothetical question on whether or not just hosting the Olympic Games would still have the same effects without successful domestic, elite athletes, "*I think if you didn't have the Joannie Rochettes and the Tessa and Scotts and the Patrick Chans it [stimulation in skating participation] wouldn't have been as great. I think it [hosting] would have definitely boosted that [skating participation] for sure but I think that was kind of a perfect storm scenario.*" As previously discussed in regards to the Demonstration Effect, and

corresponding TDE in Chapter II, Mansfield et al. (2010) found that "the Demonstration Effect process can be linked to event hosting and/or performance successes" (p. 420). Therefore, reinforcing the sentiments from **Participant 150309_001** and Mansfield et al. (2010), combining the success of Canadian athletes as well as hosting the Vancouver 2010 Olympic Winter Games may have been a "*perfect storm scenario*" to foster increased figure skating participation in Canada.

Memories**

The Vancouver 2010 Olympic Winter Games were not the first Winter Games to be hosted in Canada. The country hosted the XV Olympic Winter Games held in Calgary, Alberta, in 1988 (Canadian Olympic Committee, 2015). At these Olympic Games, Brian Orser and Elizabeth Manley both won a silver medal in their respective events, while the ice dance team of Tracy Wilson and Rob McCall won a bronze medal (Canadian Olympic Committee, 2015). Even when these Olympic Winter Games were hosted over 25 years ago, the belief still existed that by hosting these Games, combined with the success of Canadian figure skaters, that the sport would have experienced a boost in participation, as discussed by research participants.

As stated by **Participant 150307_012** "*Well you look back to 1988 when Elizabeth Manley stole the world here and the effect that that had on figure skating, it was huge. And I'm sure if you look back in the records, 1989 would have been an amazing year for Skate Canada, just because of her and her moment."* While these claims of stimulated figure skating following the 1988 Olympic Winter Games may be true, there have been no studies to support these claims. This brings one of the issues

relating to the overall subject of the TDE in that many of the claims tend to be anecdotal in nature (Potwarka & McCarville, 2010).

As claimed by Potwarka and McCarville (2010) and further supported by De Bosscher et al. (2013), there is a discrepancy in TDE studies because of the lack of empirical evidence and an overabundance of anecdotal evidence. While **Participant 150307_012** discussed the likelihood of "*an amazing year for Skate Canada*" following the Calgary 1988 Olympic Winter Games, she does not back this up with any empirical evidence. This belief or "*I'm sure if…*" response is what diminishes many of the TDE studies, in that many are based on anecdotal evidence rather than empirical data. This research participant's quotation illustrates the struggle in the subject. By using a mixed methods approach and collecting data from various sources, including membership registration statistics and figure skating participants' views and opinions, this study takes a holistic approach rather than relying on just statistics or observations alone.

Patriotic*

The second primary subtheme identified from the data, under the 'Olympic Influences' theme, were thoughts about patriotism and the increased sense of 'Patriotic' pride that was felt that came with hosting the Vancouver 2010 Olympic Winter Games. In this subtheme, many of the findings from the Pricewaterhouse Coopers (2009) in their Vancouver 2010 Olympic Winter Games legacy study were confirmed. 22% of research participants addressed this idea with 22 references to the resulting subtheme. This primary subtheme will be followed up with a secondary subtheme of 'Canadian = Skating'.

Throughout the interview process, there were many respondents who discussed how special the Vancouver 2010 Olympic Winter Games were simply because they were in Canada. As stated by **Participant 150307_010**, "*Because everyone's home, it's Canada, it's like home.*" Here it can be seen how much of an importance or increased interest someone would have in the Olympic Games when they are hosted in one's home country. Again, with increased interest comes increased exposure to the sport, and as addressed by De Bosscher et al. (2013), with increased exposure, comes the increased likelihood that someone will take up the exposed sport.

Furthermore, **Participant 150306_007** stated "*I think Vancouver [the Olympic Winter Games] was special in that way cause it was in Canada.*" These sentiments were also shared by **Participant 150307_009** when she stated "*when it was held in Canada, it was more of like it's right here in Canada and we can watch it…But in Sochi it was kind of like 'oh well, we're really kind of far away. I don't know if I should watch it tonight.*'" All of these quotations represent the importance of hosting a Major Games in influencing someone's desire to watch and increase the exposure of the sport. Therefore, as these sports become increasingly exposed and nationalistic pride is increased, there should have been a higher amount of people joining the sport following the Vancouver 2010 Olympic Winter Games compare to any other Games (De Bosscher et al., 2013; Grix & Carmichael, 2012). This, however, was not the case as Canada experienced a higher boost in figure skating participants in the season following the Turin Games compared to the increase in figure skating participants following the Vancouver Games, as evidenced by the quantitative statistics presented in Chapter V.

Canadian = Skate**

The secondary subtheme of the primary 'Patriotic' subtheme revolved around the idea that if you are Canadian, you should be able to skate. Respondents addressed the belief that skating should be viewed as a required, life skill in Canada, and anyone who identifies themselves as Canadian should be able to skate. 6% of research participants addressed this subtheme with six references to this belief.

As stated by **Participant 150308_001**, "*I think skating has been identified similar to swimming as one of those main foundation sports.*" Furthermore, **Participant 150307_013** stated "*In a province like Alberta I also think figure skating is a life skill, skating as a whole.*" This thought is interesting in itself, in that simply as an important life skill, general skating should be taught to all since it is a foundation for many winter sports. Although, because of high costs and barriers to enter in the sport, this idea of making skating a foundational life skill difficult to carry out. This will be further discussed later in this chapter.

Table 9 – Olympic Influences

INFLUENCES	SOURCES	REFERENCES	CODES	SOURCES	REFERENCES
OLYMPIC INFLUENCES	96%	151			
			Olympics	96%	138
			Hosting	79%	76
			Athlete Success	85%	57
			Memories	21%	9
			Patriotic	22%	22
			Canadian = Skate	6%	6

Organizational Influences

The second of the major themes that was identified from the data were 'Organizational Influences.' These influences all relate to different organizations and their role in leveraging and/or showcasing the Vancouver 2010 Olympic Winter Games. Those who discussed different strategies needed to leverage the Games, the role media played in showcasing the sport of figure skating, and/or provided data in regards to different organizational influences that may have played a role in persuading someone to take up the sport of figure skating, were considered as part of this theme. As can be seen in Table 10, all respondents addressed this topic with 198 total references. The references to this specific influence combine all of the primary, secondary, and tertiary subthemes that were connected to the 'Organizational Influences' theme.

The theme of 'Organizational Influences' includes nine subthemes, varying between primary, secondary and tertiary levels of difference. These subthemes[8] are: – Marketing*, Organizational Goals, Visions, Policies, Mission Statements**, Strategies**, Media*, Access to Athletes**, Social Media***, Membership*, Attendance**, and National Sport Organization (NSO), Provincial/Territorial Sport Organization (P/TSO), Community Sport Organization (CSO) Cohesion*. Data from these subthemes were deemed important in the goal of answering the two research questions. The following section addresses all subthemes and their comparison to data collected in previous literature, the importance they play in the study, and their connection to the theme of 'Organizational Influences'.

Marketing*

[8] *= Primary Subtheme, ** = Secondary Subtheme, *** = Tertiary Subtheme

The second most referenced primary subtheme related to 'Organizational Influences' is 'Marketing.' Those who discussed the importance of marketing either by a CSO, P/TSO, or NSO in looking to draw new members to the sport, were placed in this primary subtheme. 36% of research participants addressed this subtheme with 60 references related to marketing. Through these data, two secondary subthemes were identified, those being 'Organizational Goals, Visions, Policies, Mission Statements' and 'Strategies'. There were also data directed at general marketing.

When discussing the role that athletes play in promoting the sport of figure skating, **Participant 150307_008** stated "*They're [figure skaters] on lots of TV commercials now and the kids know who they are, they recognize them.*" Following the hosting of the Vancouver 2010 Olympic Winter Games as well as the success of these elite level figure skaters, according to **Participant 150307_008**, these athletes are now more recognizable to the public. Since these athletes are more commonplace in television commercials and other media, outside of competition, this further exposes the public to elite sport.

As previously stated in Chapter II, Frawley et al. (2009) define the TDE as "the process by which mass sports participation is stimulated by public exposure to elite sport" (p. 3). When elite athletes are exposed to the public, through any means (in a positive form), the sport in which he or she takes part also becomes exposed. With elite athletes such as Tessa Virtue and Scott Moir acting as endorsers for products whose commercials appear on television, these athletes also increase the exposure of their sport. While the interest is high based on increased exposure from the Olympic Games, these athletes are able to utilize their new found notoriety in public venues, again increasing

public awareness about themselves as athletes and their sport. Therefore, since Frawley et al.'s (2009) definition of the TDE does not necessarily specify what avenue the public is exposed to elite athletes, even television advertisements can maintain the public's interest in the sport, outside of the competition.

Organizational Goals, Visions, Policies, Mission Statements**

The theme of 'Organizational Influences' can be guided or constrained simply by organizations' goals, visions, policies, and mission statements. As a secondary subtheme falling under the primary subtheme of 'Marketing", these organizational goals, visions, policies, and mission statements can determine if a club or organization is setting itself up to draw more members or increase the barriers to access. In this category, discussion was generated by 14% of participants with 10 specific references.

Based on some of the updated policies following the Vancouver Games that clubs have established, according to the collected data, there is a strong foundation in place to recruit more potential participants to join the sport. Although not divulging specific examples, **Participant 150307_008** stated, "*the club has made moves to change their goals, their vision, their mission statements, revamping all that, ways to entice kids.*" With a clear direction for the organization as evidenced through improved goals, visions, and mission statements, the club is able to prioritize between increasing mass sport participation and or focusing more on elite level training.

One of the resounding approaches that was discussed by coaches and administrators was the importance of having a feeder system when trying to develop elite level talent. As stated by **Participant 1503007_012**, "*you have to have those feeder programs.*" These feeder programs are the steps in becoming a competitive figure skater.

The steps in figure skating progression, as outlined by Skate Canada (2010), include: starting to learn to skate through CanSkate training, starting to compete through STARSkate training, training and competing in a higher skilled Competitive level. These preliminary programs, such as CanSkate serve as the feeder system into the more competitive streams, and serve as the base of the sport pyramid (De Bosscher et al., 2013; Grix & Carmichael, 2012). As the base of the pyramid is increased, the talent pool is larger for development into elite, international competitive athletes (De Bosscher et al., 2013; Grix & Carmichael, 2012).

Participant 150308_006 supports these feeder systems when she stated "*If you don't have CanSkate, you can't build a pyramid because you can't have CanSkate down here [at the bottom of the sport pyramid] and your elites, you can't feed. And when you see how the numbers drop out as you go to each level, out of 300 on the bottom maybe two get into that elite category, you need a lot of base.*" This mass sport participation is required in order to develop higher level talent because of the ratio of elite skaters to the beginner skaters at the base, as outlined by **Participant 150308_006**. Therefore as clubs and skating organizations alter their organizational goals, visions, policies, and mission statements, there needs to be an increased emphasis on mass sport participation development in order to increase the pool of talent required to train elite skaters, therefore justifying the sport pyramid described by De Bosscher et al. (2013) and Grix and Carmichael (2012).

Strategies**

In terms of leveraging the Olympic Games and utilizing the event to draw more athletes into the sport, it requires a proactive approach in marketing strategies (Coalter,

2004; De Bosscher et al., 2013; Leopkey & Parent, 2012). A major sport event does not guarantee a sustained legacy (Coalter, 2004). Therefore it is up to NSOs, P/TSOs, and CSOs to proactively leverage these types of events with different kinds of marketing strategies. Throughout the data collection process such strategies were discussed by research participants, with 36% of interviewees addressing the topic, while making 45 separate references to different strategic approaches in growing the sport of figure skating.

While this secondary subtheme may be similar to the primary subtheme of marketing, these 'Strategies' are more specific to the focus of the marketing. For example, research participants discussed ideas of some of their strategies in order to draw in more members and showcase the club's existence. While the importance of marketing was previously discussed, there were no set strategies that were discussed in order to draw new members to this sport. This is the differentiation between the primary subtheme of 'Marketing' and this secondary subtheme of 'Strategies'.

While clubs may focus more on program development and skater development, it is still important to focus on marketing strategies to ensure that people are aware of the club's programs. For example, **Participant 150307_006** stated "*this year we really started using our Facebook and social media a lot to try and advertise what we were doing…I was surprised at how many people were registering their kids and going 'I didn't even know Lloyd[Lloydminster] had a skating club.'*" Furthermore, **Participant 150307_012** raised a point that "*the programs sell themselves but people need to know where the programs are located.*" Similar to the findings of Leopkey and Parent (2012) in that countries were approaching legacy planning as a taken-for-granted approach, some

clubs may believe that their programs "sell themselves" Clubs, however, must be proactive in trying to draw new members in order to increase the total number of figure skating participants. Once non-participants become active in the sport, the quality of the programming can be one of the factors in retaining the individuals, however, getting them in the club can be one of the most difficult tasks. In proactively marketing programs that clubs have to offer, these strategies can increase the likelihood of a sustained Olympic Games legacy by informing the newly recruited skaters where they can participate.

While some clubs were able to proactively build upon the excitement generated from the Vancouver 2010 Olympic Winter Games, others realize the opportunity that was missed. As stated by **Participant 150307_005**, "*we did little things to do with the Olympics, but it wasn't like 'oh come and see Joannie Rochette, join our club.' We didn't advertise that way or do anything like that. Oh I missed a chance.*" This regret of missing an opportunity to market the club and the sport is shared by **Participant 150307_012** when she stated "*We centred it [marketing plan] around just skating in general. I think it would have been a better idea to centre it more around the Olympics and we might have seen a better increase or better result.*"

With Canada hosting the Olympic Winter Games over 20 years apart and only twice in the Winter Games' existence, this opportunity to capitalize on the increased interest in sport, generated by these kinds of events, are rare. Clubs must proactively leverage these Games, as discussed, especially due to the rarity of such events. Marketing strategies must be executed around the time of an Olympic Games, either hosted or international, due to the potential increased interest in the sport, capitalizing on the exposure of the respective sports (De Bosscher, 2013).

Media*

Just as important as the role clubs play in marketing the access points and providing an outlet to participate in the sport, the media plays an equally, if not more important role in promoting the sport to the masses. Without media exposing the masses to these events and the corresponding sports, the interest may not be developed (De Bosscher et al. (2013). The role that the media plays in fostering the interest in the sport is of the utmost importance to ensuring that the masses' interest is maintained and fostered.

One of the challenges in sustaining the legacy of the Games in terms of figure skating, is the popularity of the sport outside of these major events. While discussing the reason why she watched figure skating in the Vancouver 2010 Olympic Winter Games, **Participant 150308_003** simply responded "*Cause it was on.*" Compared to ice hockey, figure skating gets little media coverage in Canada, other than major international competitions. As such, with little media coverage comes an increased difficulty for the NSO, P/TSOs, and CSOs to expand the interest in the sport.

In regards to the media awareness when it comes to figure skating, **Participant 150307_012** stated "*Televised is big too. You have to be able to actually see it.*" Also contributing to this thought in regards to the role that media plays in promoting the sport of figure skating, **Participant 150307_013** explained, "*One of the things I find is when our [Canadian] athletes go into international meets, whatever, there's very little said about them in the media. You really have to find it, you really have to know where to look. I don't think the media does a very good job of playing up the sport of figure skating.*" **Participant 150307_013** further noted that "*there would be more [figure*

skaters] if they [media] televised more. But they [media] knows what sells, they [media] know what doesn't sell."

These points illustrate a major inconsistency in the way the sport if covered. Figure skating may not be deemed popular enough by major media outlets to show on television consistently however, the sport could become more popular if there was more media coverage. This may be difficult to change, however the sentiments by the research participants only bolster the importance of capitalizing on the opportunities that clubs must use when the interest in the sport is peaked resulting from a hosted Major Games.

Access to Athletes**

The secondary subtheme which emerged from the primary subtheme of media is 'Access to Athletes.' Access to athletes is the ability one has to follow figure skating's elite level competitors both on and off the ice. In this section, 68% of research participants addressed the topic with 40 respective references. From different television shows primarily focused on some of Canada's most successful figure skating athletes, to being able to attend a 'meet and greet' with the competitors after a show, some of the best memories a youth skater can have is watching their sport heroes in action and meeting them. Even a television show which focuses on athletes on and off the ice, therefore increasing the access to their personal lives, increases the exposure of the sport. This emulation aspect will be discussed further, later in the chapter.

A television production that increased the public's access to athletes' daily lives was the 'Tessa & Scott' television show revolving around Tessa Virtue and Scott Moir. Building upon their Olympic success, the pair was featured on their own television show on the W Network starting in beginning of 2014, and was still broadcasted at the time of

this study (Corus Entertainment, 2013; Internet Movie Database, 2015). The show chronicled the pair on and off the ice and provided the public (fans of figure skating and others who did not associate themselves with the sport of figure skating) with the opportunity to gain insight into the sport. The show was described as follows (Corus Entertainment, 2013):

> With all-inclusive access never before given by Canadian figure skaters at this level, we'll go behind the scenes as their incredible story unfolds. Our cameras will give audiences an unprecedented window into Tessa and Scott's roller-coaster life of exhilarating highs and exhausting lows both on and off the ice. You don't need to be a skating fan to be entertained by the exciting, funny and heartfelt journey of one of Canada's most beloved couples. (para. 2)

This increased access is supported by **Participant 150307_005** when she stated "*I do feel like since the Vancouver Olympics, skaters know more about who the big name skaters are. They're more interested in watching and I think they are more inspired by those skaters.*" Television productions such as 'Tessa & Scott' can increase the awareness that grassroots skaters have of these elite sport stars. These types of television productions, and the ways in which athletes are being featured in television commercials, combine the findings from the 'Marketing' subtheme as well. As athletes' exposure increases, so too does the sport. With increased exposure of the sport, comes the likelihood of increased participation (De Bosscher et al., 2013).

Social Media***

One strategy in which the masses can enhance their accessibility to athletes is through the means of social media. In this subtheme, research participants addressed the

importance of social media in accessing their favourite athletes and/or being able to gather additional information. 36% of interviewees discussed this topic with 19 specific references as to the role that social media plays in their ability to follow their favourite sport and athletes.

Kietzmann, Hermkens, McCarthy, and Silvestre (2011) define social media as when "individuals and communities share, co-create, discuss, and modify user-generated content" (p. 241). These interactions can be over popular social media venues such as Facebook, Twitter, Instagram, and YouTube, to name a few (Kietzmann et al., 2011). This interaction, even if just one way, gives users a sense of belonging and pride when following their favourite athletes, celebrities, role models, and other highly visible figures. The ability to feel connected to one's favourite sport star can entice someone to become active in the sport and emulate their role model(s).

Furthermore, because of social media, people are able to follow events more closely. As stated by **Participant 150307_010**, "*because of social media and everything else, it [the Vancouver Olympic Games] wasn't just isolated to this area.*" This ability to access both athletes and organizations to see the Games from a more interactive point of view gave viewers a better experience, compared to previous Games, when fans could only view what they were shown on television at any specific time. Instead of just watching the Games, social media users can interact with the event and with athletes, while watching over 1,000 hours of coverage from the host broadcaster (International Olympic Committee, 2013). Once again, with increased exposure, the higher the likelihood of increased sport participation (De Bosscher et al., 2013).

Membership*

As discussed in Chapter V, one of the main limitations of only using membership rates, is that some people may sign up for a club but choose not to attend or participate in the club's programs and services. While the membership alone grants someone access to the sport, it does not necessarily translate into active participation. It is important to understand the observed trends from coaches and administrators in regards to the frequency of their athletes attending the club. Those who addressed this topic were placed in this subtheme, with 43% of research participants contributing to this subject, with 46 references.

As discussed in Chapter I and III, the research hypothesis at the outset of the study was that figure skating membership rates would fluctuate positively and negatively within each Olympic Winter Games cycle. Again, it was expected that membership rates would resemble a roller coaster with increases and decreases leading up to the Olympic Games, reaching their peak in the Olympic year, and then decreasing the season following a Games. While the quantitative statistics support this hypothesis (although not necessarily peaking during the Vancouver 2010 Olympic Winter Games, but membership data still rising during the lead up to the Olympic Winter Games' year and decreasing right after), this is further supported by the observations of some research participants.

According to **Participant 150308_006**, "*Every four years, it [membership numbers] seems to have a bit of a spike and then come back down. I think 2010 actually was a slightly bigger spike.*" Furthermore, stated by **Participant 150307_012**, "*Typically, with our club, the year after an Olympic year, we usually have a spike in*

registration." These observations confirm the original research hypothesis in that membership peaks during an Olympic season and would reach its height during the Vancouver 2010 Olympic Winter Games. **Participant 150307_012** further noted that "*This year though we actually had a decrease in registration which was very odd, because I had anticipated a spike.*" As **Participant 150307_012** discussed, the idea of a 'roller coaster' of participation was both confirmed and refuted based on previous trends and then current observations.

In another interview in regards to the potential for an expected increase and decrease representation in membership numbers following the Vancouver 2010 Olympic Winter Games, **Participant 150308_001**, a Skate Alberta/Northwest Territories/Nunavut leader stated "*Yeah we were surprised, especially two years after the [Vancouver] Olympics, we were surprised that our number [of figure skaters] didn't go down.*" Based on this statement, the assumption would have been that, following the Vancouver 2010 Olympic Winter Games, participation would have fallen off again. At least in Alberta/Northwest Territories/Nunavut however, this was not the case, as supported by the quantitative data as well.

A component when determining the total number of skaters enrolled in Skate Canada programs is the level of the program. As briefly discussed earlier, CanSkate is the first stage in Skate Canada programming, also known as 'Learn to Skate' (Skate Canada, 2010). The majority of skaters, or the "*base"* on which to build the sport pyramid, as discussed by **Participant 150308_006** earlier, are typically athletes enrolled in the CanSkate program. This "*life skill*" teaching program, as claimed by **Participant 150307_013**, is the program in which many of the clubs' members are involved.

As stated by **Participant 150308_001**, "*our overall membership number has always seen an increase and it's been primarily in the CanSkate area.*" While this is encouraging to note that more young children are starting to skate, CanSkate acts as a feeder system to all sports with a skating element, not just figure skating. This element of the program comes as a positive and negative. For example, **Participant 150307_012** states, "*A lot of our Learn to Skate [alternative name for CanSkate] kids, I have a lot more little hockey kids than I do up and coming figure skaters right now.*" While this is a positive, it demonstrates a difficulty in being able to accurately measure the total number of skaters who are aspiring to become a figure skater.

Attendance**

In order to ensure that members are consistently attending the club, it is important that clubs take attendance for each skating session. Without records of skaters' attendance, it is difficult to monitor athletes' involvement. As stated by **Participant 150308_004**, "*If they're going to be doing a sport they show up. Or they show up for the first few sessions and stop. Yeah, they tail off. Yeah, especially the really young ones.*" Because of the lack of motivation typical in youth, especially in very young participants (Cervelló, Escartí, & Guzmán, 2007), dropout from the sport is often the result.

With the cost of participating in figure skating being high, parents may be more proactive in pushing their children to attend, because of the financial commitment, rather than a more inexpensive sport (KidSport Canada, 2014). For those who have signed up for a given program, it is typical that they attend their scheduled sessions. This is supported by **Participant 150308_004** when she says "*We do a form of attendance, if someone if looking like they're gone for a couple of weeks then we notify them, but that's*

very, very rare." Maintaining attendance records can be used by clubs to ensure membership activity and participation.

NSO, P/TSOs, CSOs Cohesion*

The final subtheme within the 'Organizational Influences' category is 'NSO, P/TSOs, CSOs Cohesion.' This category describes the amount of integrated policy, mission, vision, and goal development with a shared contribution from the national governing body of Skate Canada, the regional governing bodies, such as Skate Alberta/Northwest Territories/Nunavut, as well as the community figure skating clubs throughout the region. Since blanket policies which cover the entire country are not necessarily feasible due to different population sizes, demographics, psychographics, and characteristics of each respective region, it is up to leaders of the NSO and P/TSOs to develop specific strategies to target specific goals for each area. Leaders of CSOs need to be shown that their opinions and recommendations are realized, no matter how big or how small the CSO is.

One of the issues with this cohesion is the lack of awareness some clubs have about the governing system of skating in Canada. As stated by **Participant 150308_001**, "*a lot of clubs they actually won't even understand the difference between how they fit in versus our office versus national. A lot of the clubs actually think there's a national office and a lot of clubs just think there's us.*" This lack of awareness in clubs across this region may hinder the possible growth or further development of programs since the CSOs may only be following guidelines presented by either, the NSO or the P/TSOs, rather than the combined knowledge of these organizations. This is because these clubs

are typically run by volunteers and as stated by **Participant 150308_001**, "*your whole board can change over.*"

Since Skate Canada hired a new CEO in the middle of 2013 (CBC, 2013), the national office has undergone many changes to their vision and strategy development. As stated by **Participant 150307_013** "*Skate Canada just got a new CEO two years ago, 18 months ago, and they redid their strategy, goals, and everything.*" These strategies include an increased level of transparency and cohesiveness between the national office and sectional offices. As stated by **Participant 150308_001**, a sectional leader, "*we're [Skate Alberta/Northwest Territories/Nunavut] trying to align with their strategic plan which just started this year, that process, before we were totally separate. So our region specifically agreed to work with National to align with their strategic plan which will be awesome. A lot of their strategic imperatives are exactly what we were doing anyway. So I hopefully will see more of a connection there.*"

Furthermore, **Participant 150308_001** noted, in regards to the increased cohesiveness, even within the NSO, "*all the main key areas of the National office sit in on that conference call. And it is interesting. Somebody will bring up a concern from the section or club level and you can tell the National level didn't think of it from that perspective. So it's good. You kind of get in your little silo sometimes*." Even something as simple as having an entire office sit in on a phone call to get different perspectives on solving issues, can increase the possibility of developing the most strategic approach. This cohesion between NSO, P/TSOs, and CSOs are of utmost importance when developing attainable goals, visions, missions, and strategies.

Table 10 – Organizational Influences

INFLUENCES	SOURCES	REFERENCES	CODES	SOURCES	REFERENCES
ORGANIZATIONAL INFLUENCES	100%	198			
			Marketing	36%	60
			Organizational Goals, Visions, Policies, Mission Statements	14%	10
			Strategies	36%	45
			Media	93%	88
			Access to Athletes	68%	40
			Social Media	36%	19
			Membership	43%	46
			Attendance	25%	10
			NSO, P/TSO, CSO Cohesion	21%	26

Personal Influences

The third major theme which emerged from the data is 'Personal Influences'. 'Personal Influences' refer to the effects that the Vancouver 2010 Olympic Winter Games and/or elite international athletes may have played in influencing someone's skating. By influencing skaters to become more active, or take their lessons more seriously, those who had experienced an increased sense of motivation, inspiration, and/or passion due to the Games were placed in this theme. All research participants addressed this topic, with 185 specific references.

These references have been broken down into eight primary and secondary subthemes. The subthemes which have emerged from the data are[9] - Emulation*, "I Want To Be There"*, Increased Physical Activity*, Competition**, "I Tried Harder"**, Inspiration*, Story**, and Motivation*. Data related to these respective subthemes were deemed significant in contributing to the originally proposed research questions. The following section addresses each of these subthemes, the data allocated to each category, and the role that the subthemes play within the 'Personal Influences' theme.

Emulation*

The first of the primary subthemes is that of emulation. Emulation is defined as trying to mimic what someone does and learn from their actions (Bandura, 1977). As previously discussed in Chapter III, Bandura (1977) presents social learning theory. This theory revolves around the notion that when an individual watches someone successfully partake in a certain activity, said individual is likely to try to emulate the success of the

[9] *= Primary Subtheme, ** = Secondary Subtheme

observed individual. This can take place by replicating actions, lifestyle choices, and following advice from the successful individual.

In a sport context, social learning theory applies closely to elite level athletic achievement and the corresponding mass sport emulation. For example, **Participant 150307_010** stated "*I think the fact that the Canadian athletes did so well really hit home cause it's like 'if they can do it, I can do it to.'*" Furthermore, **Participant 150307_009** explained "*seeing them [elite athletes] go out there and try all these things, you're kind of just like 'ok, yeah, I'll go and do it. I'll try it.'*" Also contributing to this thought was **Participant 150306_004** when she noted "*I watched it [Vancouver Olympics] because there's lots of idols that I have on there that I like to try to do all of the moves and stuff that they do, so I can encourage myself to do that.*" This emulation is what drives some athletes, so that they can be on the same stage as some of their sport role models.

Also, from a learning perspective, this emulation can help athletes as they strive to become successful. As noted by **Participant 150306_006** "*she [an elite figure skater] used to have a program that I have similar music style to, so that helped me see how to perform it.*" This desire to be like a successful athlete can trickle down to improving a sport participant's skills, just by watching their sport role model perform.

Not only is this emulation having an effect on the sport participants, but it also can help coaches. For example, a coach can utilize training footage of elite level athletes to teach sport participants the fundamentals of the sport. As stated by **Participant 150307_005**, "*So as a coach I say 'oh go dance like Virtue and Moir, keep your head up, bend your knees'. They understand what that means now a little bit better because they have those role models.*" With sport participants trying to emulate the skills and

techniques of their sport heroes, coaches can utilize this drive to emphasize certain techniques and lessons.

These points are not necessarily suited for all skaters however, as outlined by **Participant 150307_005**, when she stated "*I think it's less important for skaters who are more recreational. There is a disconnect between what those skaters are doing.*" For the recreational skaters, this emulation to be like some of the elite level athletes may not be as strong as those who are more competitive in their skating. This disconnect could actually prove to be detrimental as a 'discouragement effect' could occur (Hindson et al., 1994). Because of the ability of these elite level athletes, it may discourage some sport participants as they may feel as if they would never be able to develop the skills required to become an elite athlete. This disconnect or discouragement may play a role in not only drawing new participants into the sport, but may also discourage recreational skaters who may have wanted to become competitive. Based on the data, however, those who are already competing in the sport are likely motivated even more by the success of their sport role models.

"I Want To Be There"*

For those already active in the sport, this emulation can increase their drive and passion to be successful and ultimately ending up as an elite level figure skater. For the primary subtheme of "I Want To Be There," discussion related to participants' goals of attending the Olympic Winter Games or other elite level international competitions, as a competitor, were placed in this category. 46% of participants discussed their goals and motivation, leading to 25 specific references to the subject.

Throughout the data collection, many of the interviewees had set lofty athletic goals, the majority of them wanting to stand atop the Olympic podium. While there were many inspirational goals, the one which stood out the most was during an interview with a ten year old girl and her mother. When discussing watching the Vancouver 2010 Olympic Winter Games, **Participant 150308_002 – IP** (Interviewee Parent) asked her daughter "*I don't know if you remember, do you remember what you said when you saw them [international athletes] skating? You were four I think."* Her daughter responded by saying "*I don't remember what I said, but I remember seeing it [the Vancouver 2010 Olympic Winter Games]*." **Participant 150308_002 – IP** noted "*What were you thinking, do you remember what you thought? You don't remember? You said you wanted to be there. That's the first time she ever saw skating on TV.*" Someone, even at the age of four became inspired because of the Vancouver 2010 Olympic Winter Games, even though she had never seen the sport before that time. The inspirational motivation that the Olympic Games can provide even affected someone at such a young age who had not been previously exposed to the sport.

Another example comes from **Participant 150306_008** when discussing her child's goal of reaching the Olympic Games. She stated "*I remember that [the time around the Vancouver 2010 Olympic Winter Games] cause that, then, it was maybe a year after [the Vancouver 2010 Olympic Winter Games], something, somewhere in that range when they had this goal session in the skating and he [her son] did make a goal to go to the Olympics, so it was pretty, obviously it had some kind of impact. Cause he brought that up on his own, you know, like he wanted to do that.*" Without necessarily being pushed to develop a high performance goal, this individual's son became inspired

to train to becoming an Olympic athlete, around the time of the Vancouver 2010 Olympic Winter Games. While this may have been coincidental, there is a chance that he was personally influenced by the hosting of the Vancouver 2010 Olympic Winter Games as well as the performance of the Canadian athletes.

Increased Physical Activity*

As a result of these goals being developed, it is likely that these athletes would have to increase the amount of time spent training at their respective clubs. Ultimately, this additional time spent at their figure skating club would result in increased physical activity. In this primary subtheme, data were uncovered from 79% of research participants who made 52 references to the subject. With membership numbers remaining relatively unchanged in years following the Vancouver Games, the potential for increased physical activity from current members remains.

While membership numbers from the regions have been previously discussed, the regularity to which skaters attend scheduled sessions is also important. An individual who skates four times a week can be considered as being more active than when he/she was skating twice a week. Even though the membership data does not reflect this increase in activity, the observed trend is that this individual has doubled his/her activity level within the figure skating club.

This is put into perspective by **Participant 150307_005**, a coach, when she stated "*So skaters, when I first started at my club they skated mostly two days a week now most of them skate at least three, some of them skate four. We added morning ice and some of them come and skate in the mornings."* Because of the extra availability of the ice, as well as an increased sense of motivation, these skaters have become more active.

Furthermore, the Olympic Winter Games may not have simply affected the current sport participants to become increasingly active; it may have affected parents in their involvement with the sport. When discussing the potential increased physical activity as a result from the Vancouver Games, **Participant 150308_002** responded "*I think hosting the sport in our country, even if not the kids, the parents [are inspired to increase their involvement in the sport]*." As important as the drive that the athletes have, is the passion that the parents have towards the sport, since they are an important stakeholder to access the sport of figure skating. Parents play an important role for figure skating clubs in supporting the child/youth in selecting the sport, pay for club membership fees and competition costs, contribute to transportation, as well as acting as a positive motivator for their child. Therefore, it is of utmost importance that parents are committed and driven when their children want to increase their participation levels in figure skating (and thus increase their physical activity levels).

Competition**

In addition to increased physical activity, the Vancouver 2010 Olympic Winter Games as well as some of the international athletes can play an indirect role in improving the results of skaters at competitions. For example, when discussing the effect that hosting the Vancouver 2010 Olympic Winter Games had on her sport participation, **Participant 150306_001** stated "*I ended up switching coaches and then skating more, we got more into the idea of going competitive and doing more competition.*" While this is just one case and could have been a natural progression in her athletic career, the Vancouver 2010 Olympic Winter Games may have contributed to this natural drive.

Furthermore, the access to elite athletes that some sport participants gain can be inspiring in itself and can act as a motivator to achieving improved results. This scenario became evident during an interview with **Participant 150308_002** when she was discussing the time she met a Canadian Olympic figure skater. According to **Participant 150308_002**, "*the next day [after meeting the Canadian Olympian] I performed really well and I did a clean run-through.*" Relating back to access to athletes, the more accessible they are, the more they can provide these young skaters with a boost in confidence and drive to success. In this case, it appears that simply meeting one of Canada's current top skaters had a positive effect on this girl's successful result. Although this may be an overarching statement based on one case, it stands out in showcasing the ability elite, internationally competing athletes have in inspiring younger athletes.

"I Tried Harder"**

During data collection, it became evident that some athletes were attending their club and partaking in as many training sessions as they possibly could. Because these athletes were utilizing the club as often as they could, there was no possibility of increased physical activity. One alternative, however, was that the Vancouver 2010 Olympic Winter Games could provide inspiration to those who were already as active as possible, to 'try harder' and 'take skating more seriously.' Throughout data collection, 43% of research participants discussed this subtheme, while 24 specific references were compiled.

Being able to take sport more seriously comes with a change in the mindset of sport participants, from attending skating sessions because they have to, or because of a

financial commitment, to becoming a fully dedicated athlete. This change in mindset became evident during a discussion with **Participants 150307_010** – **IF** (Interviewee Female), **IM** (Interviewee Male), and **IP** (Interviewee Parent). When discussing the topic of increased focus and 'trying harder,' **Participant 150307_010 - IF** stated "*We kind of got more motivated to be more professional at our competitions."* **Participant 150307_010** – **IM** added "*Yeah, more focused and not all goofy*." This was ultimately confirmed by **Participant 150307_010** – **IP** when she stated "*I definitely saw an increased focus in their training when they're on the ice. It was a lot less, just standing around and a lot more get down to business kind of attitude.*"

This changed mindset can be attributed to the idea of emulation discussed earlier as well as the increased accessibility to athletes. Because of the television productions featuring Olympic athletes and social media which give followers the ability to see these elite level competitors outside of the sport and competition context, this increased exposure can play a significant role in motivating these young athletes. As sport participants can now see how elite level athletes behave on and off the ice, this can possibly change their mindset to take figure skating 'more seriously' and as stated by **Participant 150307_010** – **IP, "***get down to business.*"

Inspiration*

The most commonly discussed subtheme within the 'Personal Influences' category is that of 'Inspiration.' Many of the research participants; athletes, coaches, and administrators alike, felt a sense of inspiration, or encouragement and revived dedication because of the Vancouver 2010 Olympic Winter Games. Because of the accomplishments of Canadian athletes, as well as the increased sense of nationalism felt

in this country, many research participants felt inspired due to spirit of the Olympic Winter Games. This subtheme was one the most commonly discussed within the category of 'Personal Influences' as it was addressed by 89% of research participants, who made 69 references to the subject.

In virtually every definition related to the TDE, the word(s) inspire/ inspired/ inspiration is an important outcome of hosting a Major Games (Boardley, 2013; Cashman 2006; De Bosscher et al., 2013; Grix & Carmichael, 2012; Hindson et al., 1994; Mansfield et al., 2010; Potwarka & McCarville, 2010; Soteriades et al., 2006; Weed, 2009). It is believed that inspiration would increase people's drive to become more physically active for years following the hosting of the Games. For figure skating in Canada, as it has been discussed, the sport has not necessarily sustained an increased number of new participants; however those who were already involved in the sport appeared to have become more active, and, in some cases, experienced a stronger drive for success.

As stated by **Participant 150308_004**, "*I think you definitely have to have somebody that inspires you.*" Regardless of whether the athletes originate from Canada or from other countries, the increased exposure to the world's greatest athletes can provide inspiration. As outlined by **Participant 150307_007** in regards to why hosting the Games was inspirational, "*it's still the best skaters in the world, so it's still inspiring.*" Even if the Canadian figure skaters had not been successful, this research participant still would have found inspiration.

Also contributing to this discussion was **Participant 150308_006** when he noted "*They [athletes] start their long career at your Olympics…You take pride that you were*

able to provide [the opportunity]." Combining these sentiments with those of **Participant 150307_007**, the idea that Canada provided the opportunity for all athletes to participate, regardless of their nationality, can invoke a sense of pride and inspiration as well. Even with international figure skaters performing well on the host nation's ice, the elite level talent, combined with the idea that 'we' were able to provide these athletes with the platform to perform, can also be inspirational to a host nation resident. Increased inspiration may lead to take up the sport (Hindson et al., 1994; Soteriades et al., 2006; Weed, 2009).

Story**

One of the results of hosting an Olympic Games is the increased media coverage dedicated to the host nation's athletes (Grix & Carmichael, 2012). Again, referencing the Canadian Newsstand Major Dailies (2015) statistics in regards to the amount of print media dedicated to Tessa Virtue and Scott Moir, the number of articles increased by over 200% in 2010. These athletes' stories based on their on-ice and off-ice lives can inspire people, ultimately leading them to become active (Boardley, 2013; Cashman, 2006).

Not only can stories inspire people to become more active in the sport, they can also provoke a sense of emulation to become a future champion. As put by **Participant 150306_010**, "*they [elite athletes] have stories, maybe I can get a story one day and I'll be on the Internet and I think that's really cool.*" This emulation and desire to have a 'story of their own' provides insight into the idea of the virtuous cycle of sport presented by Grix and Carmichael (2012) in Chapter II. This idea is that elite success will result in increased participation, which will provide a wider 'pool' for talent identification, which will then lead to sustained elite success (Grix & Carmichael, 2012).

Furthermore, when discussing the stories that emerged during the Olympic Games, **Participant 150308_002** stated "*there's always some story. When it's your home country, there's always some story that connects to you.*" Also discussing this topic was **Participant 150308_006** when he explained "*there was more profiling on all the athletes for being in Canada.*" Research participants noted that when an Olympic Games is hosted, the amount of stories as well as the interest increases in the country hosting these Games. Increased interest enhances the likelihood of increased participation (De Bosscher et al., 2013).

Motivation*

In addition to the inspiration that sport participants experienced due to the hosting of the Vancouver 2010 Olympic Winter Games, interviewees discussed increased motivation resulting from the Games. This increased motivation experienced by skaters was one of the highest discussed subthemes within the 'Personal Influences' theme. 82% of research participants addressed this topic, while referring to it 65 times.

One of the interesting aspects of motivation experienced by the research participants is that, while motivation to become successful and become more physically active following the Olympic Winter Games is evident, this motivation appears to fade over time. As stated by **Participants 150307_002 and 003**, "*after you watch it, you're motivated but then that kind of fades away once they've passed.*" Because the Olympic Winter Games provide only a small window of opportunity of exposure, this motivation must be sustained in order to keep the current sport participants active. While mass sport athletes may not be solely motivated by an Olympic Winter Games to increase their sport

participation, this type of event can act as a major influencer in their levels of motivation (Potwarka & McCarville, 2010).

Because motivation can fade, leaders and coaches from NSO, P/TSOs, and CSOs may wish to develop strategies to maintain and generate motivation amongst its members (i.e., athletes, participants). As stated by **Participant 150307_008**, "*And then [after the Olympic Winter Games], the coaches help to breed their motivation and help that condition.*" What **Participant 150307_008** is discussing is the role that these coaches play in ensuring that the motivation to succeed is reinforced. It is imperative that this motivation is fostered by coaches in order to keep these athletes active, especially once the Olympic Winter Games pass. As **Participant 150307_013** explained "*their [sport participants] second parents are on the ice because the coach is their second mother [or father],*" it is important that coaches understand this role and foster motivation. The importance of coaches leads into the next section, 'Role Model Influences.'

Table 11 – Personal Influences

INFLUENCES	SOURCES	REFERENCES	CODES	SOURCES	REFERENCES
PERSONAL INFLUENCES	100%	185			
			Emulation	79%	53
			"I Want To Be There"	46%	25
			Increased Physical Activity	79%	52
			Competition	39%	15
			"I Tried Harder"	43%	24
			Inspiration	89%	69
			Story	32%	13
			Motivation	82%	65

Role Model Influences

The fourth major theme which emerged throughout data analysis is that of 'Role Model Influences.' This theme is designated for the importance that role models play in influencing an athlete's drive, motivation, and passion for success and athletic achievement. A role model in the form of an Olympic athlete, a friend, or a family member, serves an important function in an athlete's sport participation. These 'Role Model Influences' were discussed by all research participants, who attributed 166 references to the subject.

These data have been broken down into six subthemes. These subthemes consist of primary, secondary, and tertiary placing based upon each reference to a role model category. These subthemes are[10] - Athletes*, Role Model Effect and Utilization**, Canadian Athletes***, Coach***, International Athletes***, Family and Friend Relationships*. Throughout data collection and analysis, all research participants discussed at least one of these respective subthemes. The following section addresses each of these subthemes and their importance to answering the research questions.

Athletes*

The level of influence athletes, from any country, can have on a sport participant can be high. No matter if the athlete is from the host resident's country, or an international competitor, all athletic achievements can be viewed as an inspiration to sport participants. As has been discussed throughout this chapter, there have been several examples of athletes providing a source of motivation and drive to these sport athletes. In

[10] *= Primary Subtheme, ** = Secondary Subtheme, *** = Tertiary Subtheme

this primary subtheme, all research participants addressed this topic, making 136 references.

Again, reinforcing the point that athletes from any country can be a role model and inspiration, **Participant 150307_001** stated "*Athletes are great, doesn't matter what country they represent, I cheer them all on. Ours [Canadian athletes] a little more.*" While the host country's athletes may garner more attention and more celebration when they are victorious, this participant discussed how no matter where successful athletes originates, the pure enjoyment of the sport and the performances of the world's most talented athletes can be celebrated. The attention focused on these athletes has been heightened in the past years, especially due to the increase of social media (Kietzmann et al., 2011). This increased attention can ultimately lead to inspiring youth.

Role Model Utilization**

As previously discussed in the 'Personal Influences' theme, under the subtheme of 'Story,' there is a belief that as domestic Olympic champions arise, this will lead to the increase in physical activity in the home country, which creates a larger talent pool, and therefore more Olympic champions (Grix & Carmichael, 2012). This virtuous cycle of sport is directly correlated with the importance of role models within the sport. As sport participants develop and idolize these role models, this appreciation for talent can lead to increased sport participation. The importance of having role models, be it an Olympic athlete, coach, friend, or family member can ultimately motivate someone to take up, and stay in a sport.

This is demonstrated by **Participant 150307_011** when she noted "*Kids see somebody who's a good role model that way, I think it really does inspire them to stay*

on." Furthermore, **Participant 150308_004** added to this sentiment by stating "*I think you definitely have to have somebody that inspires you. I think any athlete you see in it [the Olympic Games], Olympic athletes always had an athlete they see on TV or someone they say 'oh, I want to do what that person did."*" This opinion, shared by athlete and coach alike, show that athlete admiration in the form of a role model plays an important part in an athlete's drive and passion, no matter what level of skater.

While it is important for these sport participants to have a role model from which to draw inspiration, elite athletes need to be positive leaders in their athletic community. Furthermore, the NSO, P/TSOs, and CSOs can utilize these elite level athletes in a way where they are visible and accessible to the sport's community. **Participant 150308_001** addressed this point: "*I think National [Skate Canada] has done a really good job in the past 18 months, they've been using those international and national skaters to go back and promote the grassroots bubble, and they talk about how CanSkate helps them and how they went all the way to the international level. And they just said they don't forget their grassroots and where they came from.*" This is reinforced by **Participant 150308_006** when he stated "*And I think that's important that the top skaters remember where they came from.*" This importance of promoting the idea that these international athletes started as mass sport participants and now they are competing internationally shows how NSOs, P/TSOs, and CSOs should utilize these athletes in marketing strategies.

Furthermore, some of the strategies that clubs P/TSOs and NSO have used to increase the knowledge of CSO leaders are having some of these elite athletes participate in workshops and seminars. For example, **Participant 150308_001** stated that "*they*

[Canadian elite figure skaters] also do a really good job when you go to workshops and seminars and anywhere you see them." Even the administrators can inspire the coaches by bringing in and utilizing some of the star athletes, while they teach valuable lessons, that can then be passed down to the sport participant. Therefore, leaders of CSOs and P/TSOs need to utilize high profile Canadian elite level athletes in drawing new participants, motivating current participants with visits, and bringing them in to extend their knowledge to organizational leaders.

Canadian Athletes***

Even though elite international athletes can serve as a motivation to a sport participant, as previously discussed, there is undoubtedly a stronger connection that can be made to domestic athletes, in most cases of research participants. This attachment and the sense of increased national pride which comes with cheering on a domestic athlete and seeing him/her succeed can act as a strong motivational tool for skaters to become even more active, or push them to train harder. Highly visible athletes, such as Joannie Rochette, Patrick Chan, and Tessa Virtue and Scott Moir all reached a height of popularity during the Vancouver 2010 Olympic Winter Games. These athletes can all ultimately act as a role model for sport participants, while sport organizations can leverage their success at the Vancouver 2010 Olympic Winter Games to promote increased sport participation. In this category 93% of research participants addressed this tertiary subtheme of Canadian Athletes, making 58 references to the topic.

As stated by **Participant 150307_010**, "*I think the fact that the Canadian athletes did so well really hit home cause it's like 'if they can do it, I can do it too.'*" This quotation specifically related back to the idea of emulation as well as the virtuous sport

cycle idea presented by Grix and Carmichael (2012). Since the Canadian figure skaters were successful at the Vancouver 2010 Olympic Winter Games, this success further increased and maximized the exposure that the sport of figure skating gained by hosting the Olympic Winter Games. This "*perfect storm scenario,*" as discussed by **Participant 150309_001** and as earlier addressed, of hosting and the Canadian athletes' success provided the perfect opportunity for the sport to grow. Once again, because of the success of Canadian figure skaters at the Vancouver Games, combined with hosting these Games, this increased exposure to the sport may lead to an increase in sport participation (De Bosscher et al., 2013).

International Athletes***

International elite athletes can serve as an inspiration for sport participants. For example, at the time of this study, in the Men's and Women's figure skating category, the top Canadian male figure skater was ranked 25th, while the top female was ranked 15th (International Skating Union, 2015). Sport participants can draw inspiration from elite level athletes, no matter from what country they are. This is addressed by **Participant 150308_003** when asked who her favourite figure skaters were. Her two figure skating role models were Elena Radionova and Julia Lipnitskaya. When asked why those were her favourite skaters, **Participant 150308_003** replied "*Cause they're good.*" Furthermore, **Participant 150308_003** discussed how she was voluntarily learning how to speak Russian because she was planning on attending the International Skating Union (ISU) World Championships, taking place in Lethbridge, Alberta in 2015 (Skate Canada, 2015). She was learning Russian for the sole purpose of being able to talk to her figure skating role models.

As demonstrated by **Participant 150308_003**'s strong desire to learn another language, this admiration for international figure skaters can be a source of inspiration to sport participants. By hosting a Major Games, such as that as the Olympic Winter Games, or the ISU World Championships, this increased exposure to athletes outside of Canada can provide an even greater pool of elite level athletes from which sport participants can draw motivation.

Coach***

While it is important for young sport participants to have role models in the form of elite international athletes, it is equally as important to have a coach who can be viewed in the same light. As previously discussed in the primary subtheme of 'Motivation' under the overarching theme of 'Personal Influences,' it is important that coaches foster the motivation of their students once they have become inspired by the hosting of a Major Games, or by the success of their elite sport role models. It is required that coaches are able to serve as an active role model with which sport participants can interact daily.

Family and Friend Relationship*

One of the most common role models in promoting physical activity participation is family and friends (Côté, 1999). Brustad (1993) found that higher parental encouragement was associated with greater perceived physical competence for children. According to Brustad (1993) "Higher levels of perceived competence will in turn be linked to greater attraction to physical activity." (p. 212). These two findings by Côté (1999) and Brustad (1993) demonstrate the importance of a positive role model in the form of family and friends in encouraging sport participants in increased participation. It

is of utmost importance that parents of the athletes are their main supporters in order to ensure that the sport participants sustain their levels of participation and reach their goals (Brustad, 1993; Côté, 1999).

Throughout the data collection process, there were eight research participants who stated that their mother was a figure skater, or their mother directed them into figure skating, and that is the main reason why they entered the sport. When discussing who the Olympic Games may affect the most, **Participant 150307_005** stated, "*You know who I think it affects the most, is actually parents…And they [family friends] watched the most recent Olympics and they just had a baby girl and they're like 'oh skating, it's so wonderful and we had her watch even though she's six months old.' I think that really drew them in and they see it as a worthwhile sport to participate in, so they want to push her towards that.*" Even though the couple's daughter was too young to walk, the parents seemed to be committed to enrolling her in figure skating. This multi-generational impact of the inspiration that an Olympic Games can provide showcases the longevity of hosting a Major Games in that parents become influenced to enroll their children into sports, actively affecting a base foundation for athletic skills at a young age.

Table 12 – Role Model Influences

INFLUENCES	SOURCES	REFERENCES	CODES	SOURCES	REFERENCES
ROLE MODEL INFLUENCES	100%	166			
			Athletes	100%	136
			Role Model Utilization	100%	104
			Canadian Athletes	93%	58
			International Athletes	18%	7
			Coach	21%	10
			Family & Friend Relationship	79%	36

Restrictive Influences

The fifth and final theme that was found was that of 'Restrictive Influences.' This theme captured the discussions related to the negative influences which may restrict a potential participant's access to the sport. From both an athlete and a coach perspectives, there were many barriers to entry which restricted access to sport participation. Barriers such as the cost of the sport as well as a need for more ice time, a higher demand for more coaches, among other needs which will be discussed in the following section, there are many reasons why the level of inspiration, motivation, and/or intent to become active in a sport, does not come to fruition. These 'Restrictive Influences' are barriers that prevent individuals from potentially joining a figure skating club.

Throughout data analysis, these 'Restrictive Influences' were discussed by 82% of research participants, accumulating 224 references to the subject. These 224 references are divided among the seven primary and secondary subthemes. These subthemes are as follows[11] – Barriers to Access*, Cost**, Needs*, Coaching**, Funding**, Ice Time**, and Lower Costs**. Each of these subthemes represent a significant restriction when enrolling into the sport of figure skating. Related to these subthemes, a person who may have become inspired to participate following an Olympic Winter Games, may not have been able to follow through with this intent. The following section described each of these subthemes.

Barriers to Access*

All of these restrictive influences presented in the overarching theme ultimately come down to the different barriers to entry into the sport. There are many different

[11] *= Primary Subtheme, ** = Secondary Subtheme

outside factors that may limit someone's access to sport. Throughout interviews with coaches, administrators, athletes, and parents, many of these barriers to entry were discussed, specifically to the sport of figure skating. In this primary subtheme, 57% of research participants addressed the topic and they contributed 124 references, all relating to different barriers to access, either to become an athlete, or to become a coach.

Donnelly and Harvey (1996) discussed several different types of barriers to access which were common in grassroots sports, these being – Infrastructural, Superstructural, and Procedural barriers to access. Each type of barrier contains several common reasons why people may not be able to participate in sport. Of the three barriers, the common restrictive influences applicable to this study come in the form of infrastructural barriers to access. According to Donnelly and Harvey (1996) "Infrastructural barriers are related to the material means of access." (p. 33). Several of these restrictive material means of access, presented by Donnelly and Harvey (1996) are cost, transportation, time, location, facilities, and security. Many of these infrastructural barriers were identified by research participants, and these are further discussed throughout the remaining section.

Adding to these common infrastructural barriers, one additional restriction to access is the availability and the access to required equipment. A question which was asked to research participants was "*What strategies do you think need to be developed to increase membership at your club?*" Although, not generally relating back to the effect an Olympic Games can have on a nation, the question was intended to learn what is holding back clubs from drawing in new participants who may have wanted to join the sport following the hosting of a Major Games, however there was a barrier which prevented them from joining. For example, **Participant 150307_012** responded "*I think*

even the little things like accessibility of appropriate skating attire. We have in Calgary, which is a million plus people, one skate shop that you can get figure skates at. One. And it's a very hard place to get into. So even little things like the availability of appropriate skating attire impacts things." While the basic, entry level skating attire may be available at some of the major sporting goods stores, the higher level athletes require more specialized equipment and services, likely unavailable at these major chain sporting goods stores. This ability to access appropriate equipment needed to participate, at any level, is another significant contributor to the infrastructural barriers to access presented by Donnelly and Harvey (1996).

Cost**

The single most discussed barrier to entry was cost. 46% of research participants addressed this topic, while making 68 references to the high cost of figure skating resulting in stymied participation, or potential withdrawing from the sport. Upon first glance, the sport of figure skating seemingly requires minimal equipment, especially compared to a sport such as ice hockey, many of the higher end sport equipment can cost hundreds, if not thousands of dollars. For example, upon reviewing an online figure skating specialist (Figureskating Boutique, 2013), the costs of a minimal amount of equipment can be in the hundreds of dollars:

- Figure Skate Boots (not including the blades): $86-$711
- Figure Skate Blades: $155-$605
- Dress: $100-$175
- Accessories: Approximately $100+

Not only can this equipment cost hundreds of dollars, young athletes, who are still developing, are likely to grow out of this equipment within a short time period, in some cases, less than a year. This equipment alone can force participants out of the sport, regardless of the membership fees, ice time fees, and coaching costs.

These costs are reinforced by several research participants who discussed the fees restricting access to participation:

- **Participant 150307_005** – "*I feel that it is unfortunate that figure skating is harder to access sport for people who are low income.*"
- **Participant 150307_008** – "*I mean figure skates for these kids – my daughter's 13 and I just got her new skates that were $850, for a 13 year old.*"
- **Participant 150307_011** – "*I have kids who are more recreational. They may be able to get away with a bill that's approximately $200 a month, or you can have an elite skater and those bills are upwards of $2,000 a month, so it really depends. It's quite a wide scale.*"
- **Participant 150307_012** – "*$700 figure skates.*"
- **Participant 150308_004** – "*Growing up I only had, we only were able to afford one sport because [of] figure skating.*"

According to the high performance director of Skate Canada, Mike Slipchuk, "even at the lowest level, the cost of competing is about $10,000 a year…You could spend that in a blink of an eye. I have heard of costs running as high as $30,000" (Druzin, 2009, para. 6). As stated by **Participant 150308_004**, because of the cost of this one sport, it restricted her ability to be active in several sports. Ultimately, this barrier to access can be one of the most significant deterrents for people to follow through with their intent to join figure skating.

Needs*

While there are several barriers to access which restrict people's ability to participate in figure skating, research participants discussed the required needs in order to increase access to the sport. These discussions revolved around the requirements needed

to further stimulate participation of current athletes as well as bringing in new participants. 36% of research participants contributed to these discussions, producing 109 specific references, while identifying six general needs within figure skating. The following section addressed these six needs required to grow the sport of figure skating.

Coaching**

As stated by Kirk (2005), "early learning experiences are crucial to continuing involvement in physical activity" (p. 240). These early learning experiences are especially important in a sport where the coach plays a major role in the early development of an athlete. As stated earlier by **Participant 150307_013**, "*their [sport participants] second parents are on the ice because the coach is their second mother [or father]*." Combining this with Côté's (1999) earlier discussed findings in that some of the role models in young athletes' lives are parental figures, the quality of coaching, even for young athletes, must be high to ensure continued physical activity (Kirk, 2005). It is important that these coaches are highly qualified for the position and can act as a positive role model for their athletes.

The difficulty that lies within figure skating is the number of coaches who are certified to be able to properly teach Skate Canada's developed curriculum. Several research participants discussed the barriers to access to coaching and the difficulty to become and remain a Skate Canada certified coach. **Participant 150307_011** discussed the process of becoming a certified coach, "*it would be the equivalent to probably a couple of university classes. So for me to even start doing the level one courses…was probably about $600-$700 and there's quite a lot of time that goes into it as well. So they've [Skate Canada] really made it a lengthy process.*" As stated by **Participant**

150309_001, "*It's a lot of time and money and investment as a coach to get your entry fee level and keep re-certifying yourself and updating yourself.*" This heavy commitment, both time and financial, leads to a limited coaching staff. For example, **Participant 150308_004** explained "*we can't get a coaching staff…We went three years with a limited coaching staff and it was brutal…It blew me out.*"

While the coaching certification process ensures a high quality of coach, the work required, especially for teaching the introductory athletes, may not be worth the return to some. Because of the lack of coaches, even for beginner CanSkate coaches, many potential athletes do not have the opportunity to enroll in the club. As stated by **Participant 150308_004**, "*We [skating club] can only take on as many [athletes] as these coaches.*" With fewer coaches, comes less time for outsiders to become active in the sport. With the challenges of becoming a coach and its recertification, it leads to fewer coaches, which puts more stress on current coaches, therefore leading to an increased workload. This increased workload can then de-motivate current coaches and force them to leave the sport, such as **Participant 150308_004** did when she said "*It blew me out.*" While **Participant 150308_004** did not leave the sport, this mental and physical stress demonstrates the need for more coaches in order to grow the sport.

Ice Time**

Another issue which emerged through data collection is the limited ice time allocated to figure skaters. This limited ice time results in fewer hours for the skaters to participate. Without the proper venues, participation in the sport would become stagnant because there would be no place for the new athletes to enter the sport. According to many research participants, the lack of ice time was one of, if not the main reason, why

their clubs were not able to bring in new participants. 29% of research participants discussed the need for more ice time, making 31 individual references to the idea.

These claims are demonstrated by several research participants when they stated:

- **Participant 150307_005 –** "*If we could get more ice, we could get more skaters. They would develop faster as well. That would be our dream to have more ice.*"
- **Participant 150307_011** – "*We have no place to put the kids [in a competitive stream] even that are coming out of that [CanSkate] because we're running out of ice space.*"
- **Participant 150307_012** – "*There's just no prime time ice, and the people [who] do have the prime time ice are minor hockey leagues, they won't give up any blocks.*"
- **Participant 150307_012** – "*our club is growing to the point now where we need to do another day of Can Skate, another day of Pre Can and I need more time for our Star skaters. But there is no ice in the city.*"
- **Participant 150307_012** – "*And ultimately you can't grow the club unless you have more ice time.*"
- **Participant 150307_013** – "*I find the more ice you can get the more kids you can get on the ice. Our biggest limiting factor is ice. So because we don't have enough ice we can't get that many more kids. If we had another sheet of ice we would offer programs on that ice and I bet you they would come. We just don't have the capacity for that.*"
- **Participant 150309_001** – "*Our problem is getting more ice.*"

In a study dedicated to determining the need for more ice arenas in the City of Calgary, Community Development Consultants (2006) found that up to 10 new arenas were required in the city to accommodate the demands for ice time within five years of the study. Community Development Consultants (2006) stated four reasons why these arenas are required:

> One is to provide more ice time to existing users. Another is to provide ice time to new users who might currently want to use ice but cannot because of capacity constraints…A third is to accommodate an increasing proportion of the population that might become ice users in the future…The last reason is to accommodate growth in population. (p. 23)

While this study was completed in 2006, there is still a need for increased ice time based on the research participants. Many of the reasons identified for the need for more ice are confirmed by the research participants. While it is understood that the region of Alberta/Northwest Territories/Nunavut has experienced a higher growth in the number of figure skating participants since 2003, compared to other regions (see Chapter V), this need, as outlined by research participants, emphasizes the importance of having enough facilities to fulfill the demand in any sport.

Lower Costs**

While the cost of the sport has previously been discussed from an athlete's and coach's perspectives, the facility costs can limit the ice time the athletes are able to afford. Since CSOs typically operate separately from the facility, the skating clubs would have to rent the ice, the same as a hockey CSO, or even an individual. These costs would then be passed on to the participants through their registration fees.

For example, the Thorncliffe Greenview Ice Skating Club (TGISC) would have to pay rental fees to the Thorncliffe Greenview Community Association (TGCA), since the TGCA runs the facility. The costs to use the Forbes Innes Arena, which is the rink that is run by the TGCA and used by the TGISC are as follows:

- Prime time ice rental rate - $220.00/hour
    - Monday-Friday - 5:00pm-12:00am
    - Saturday/Sunday – 6:00am-12:00am
- Non-prime time ice rental rate - $90.00/hour
    - Monday-Friday – 6:00am-5:00pm
- Late night ice rental rate - $145.00/hour
    - After 12:00am daily (Thorncliffe Greenview Community Association, 2015 para. 3-5)

While several participants may be able to split the costs as they may be able to practice at one time, having too many skaters on the ice at one time becomes dangerous for the athletes. Since skating routines typically take up the entire sheet of ice, this restricts the ability to have many athletes utilize the ice at the same time in order to divide the costs. Compared to ice hockey, there could be up to 20 athletes on each team, all using the ice simultaneously, therefore the two teams could split the cost of the prime time ice rental between 40 participants. In figure skating, because of the area needed to practice, only a limited number of athletes can split the costs, therefore making it even more expensive.

This point is reinforced by **Participant 150307_012** "*We tried that [having several skaters use the ice at once] and there was just too many skaters out there during that time.*" Combined with the lack of available ice time, this demand for venue access allows facility managers to increase the costs. These costs are then transferred on to the athletes, which further increases registration fees.

As the costs increase, so does the likelihood of athletes withdrawing from the sport. With less participants at the base, this leads to a decreased talent pool for future Olympic athletes, as previously discussed with the virtuous cycle of sport. This is reaffirmed by **Participant 150307_008** when she stated "*they [clubs] have to do something about the costs. Because you lose a lot of potentially good skaters.*" Until figure skating becomes more affordable for all, figure skating may not be able to grow or sustain growth simply because of the high costs associated with participating in the sport.

Funding**

The need for lower costs associated with the sport of figure skating leads into the next need of increased funding. While decreasing costs may not be possible in terms of lowering the price manufacturers will sell equipment, arenas charge for prime time ice, or decreasing coaching fees, an increased level of funding can result in figure skating becoming more affordable. Again, as per Donnelly and Harvey (1996), one of the most common barriers to access in sport is cost. With an increased level of funding, more participants may be able to access the sport, ultimately leading to higher levels of participation in figure skating.

This required fundraising does not necessarily come with ease. As stated by **Participant 150307_012**, "*there's only so much fundraising, only so much stuff you can do to supplement the fees. So at some point some percentage of kids have to bow out because of that.*" This is further supported when **Participant 150307_006** stated "*I know our club, I don't know about other clubs, but our club definitely struggles with fundraising involvement and commitments.*" This difficulty to raise additional funds to assist potential athletes with equipment, registration, and coaching costs presents another struggle which hinders the ability of the club to bring in new participants and grow the sport. This is where charitable sport organizations such as KidSport Canada and Canadian Tire Jumpstart can play an important role in subsidizing the costs of sport participation.

Both KidSport Canada and Canadian Tire Jumpstart are organizations that lower the cost barrier by providing funding to parents of children who may not be able to participate in sport because of the cost. KidSport Canada is "a national not-for-profit

organization that provides financial assistance for registration fees and equipment to kids aged 18 and under" (KidSport Canada, 2013, para. 1). Canadian Tire Jumpstart "is a registered charity dedicated to removing financial barriers so kids across Canada have the opportunity to get off the sidelines and get into the game" (Canadian Tire Jumpstart, 2014, para. 1). **Participant 150307_005** emphasizes the importance of these organizations by stating "*we do know a lot of them [skaters] take advantage of the Jumpstart program*". Furthermore, **Participant 150308_004**'s organization also uses these fundraising charities to increase access to the sport. According to **Participant 150308_004**, "*we do a lot of KidSport, like Jumpstart with the Canadian Tire program.*" Funding organizations such as KidSport Canada and Canadian Tire Jumpstart need to be promoted by CSOs to foster sport participation for those who may not be able to afford figure skating.

Table 13 – Restrictive Influences

INFLUENCES	SOURCES	REFERENCES	CODES	SOURCES	REFERENCES
RESTRICTIVE INFLUENCES	82%	224			
			Barriers to Access	57%	124
			Cost	46%	68
			Needs	36%	109
			Coaching	39%	45
			Ice Time	29%	31
			Lower Costs	18%	9
			Funding	21%	13

Trickle-Down Effects

Throughout data collection and analysis, five major themes were identified. These themes were displayed in the form of influences where each has the ability to influence figure skating participation rates. Regardless of a direct or indirect impact, based on the responses from research participants, it is clear that the Olympic Winter Games had an impact on current skating participants. By motivating athletes as well as coaches and administrators, the TDE appears to apply to those who are already enrolled in the sport. Again, the definition of the TDE, provided by Hindson et al. (1994) states that,

> …it is assumed that the high profile of successful Olympic athletes will have a 'trickle-down' effect and will result in increasing numbers of people taking up these sports, increased membership of clubs in the respective sports and higher performance aspirations on the part of club members. (p. 17)

Furthermore, based on Mansfield et al.'s (2010) results, that were discussed in Chapter II, one of the outcomes of the demonstration effect is that a Major Games has the ability "to encourage infrequent participants to participate more regularly" (p. 420).

Research participants who were already active in the sport, experienced higher performance aspirations and participated more regularly. The higher performance aspirations for current sport participants were the result of increased levels of motivation and inspiration because of the increased exposure of the sport from the Games, as well as the performance of Canadian athletes. The combination of athlete success and hosting resulted in a "perfect storm scenario," to foster sport participation, as stated by **Participant 150309_001**. Therefore, within the sport of figure skating, and within the

research sample, the TDE has been realized in Canada, following the Vancouver 2010 Olympic Winter Games, for those already active in the sport.

Chapter VII: Conclusion

As stated in Chapter I, the purpose of this study was to examine the effect(s) that hosting a Major Games can have on sport participation rates in the host country, with a specific focus on the Vancouver 2010 Olympic Winter Games and Canada. By studying figure skating, this research has shed light on what the Trickle-Down Effects (TDE) and corresponding demonstration effects might have been. The quantitative and qualitative data have been collected and analyzed to answer the research questions:

1. What effect(s) did hosting the Vancouver 2010 Olympic Winter Games have on winter sport participation in Canada?
2. If and where sport participation rates have increased, were these Games a factor in stimulating this participation?

As evidenced throughout the study, hosting the Vancouver 2010 Olympic Winter Games had an effect on sport participation, soon after hosting these Games. This increase in sport participation, however, was only evident for two seasons following the Vancouver 2010 Olympic Winter Games, as the overall number of skaters fell three seasons following these Games, below pre-Vancouver numbers. These effects were not, however, felt by those who were not already invested in the sport, as evidenced from the non-sustained figure skating participation statistics, nationally.

While the Olympic Games themselves present a window of opportunity to foster sport participation, these Games do not have the power in themselves to bring people to participate in sport, at least in figure skating. It is up to NSOs, P/TSOs, and CSOs to

ultimately utilize Major Games to promote sport, and be proactive in drawing new participants, either sedentary individuals or already active athletes. Sport organizations must properly capitalize upon the increased interest that any Major Games brings to increase sport participation.

Since there was only a 2.65% increase in figure skating participation rates following the Vancouver 2010 Olympic Winter Games, the second research question was "If there is no resulting effect, or a decrease in participation rates, what role did these Games play, regarding sport participation?" As has been discussed, those who were already active in the sport were the participants who appeared to be most affected by the hosting of the Vancouver Olympic Winter Games. Even though the number of sport participants did not necessarily increase, or in some regions, sustained the minor increase following the Olympic Winter Games, findings of this study show that the event affected those who were already active in the sport to become more active.

As such, it appears that in order for an impact to occur, all five influences presented in Chapter VI (i.e., Olympic influences, organizational influences, personal influences, role model influences, and restrictive influences) need to occur concurrently to promote increased participation in figure skating. For example, when a role model (i.e., a high performance athlete) performing well at a Major Games, the sport participant will likely want to emulate the skater's accomplishments. In order for this sport participant to become more active, the high performance athlete's accomplishments would need to be visible in the media and there would need to be facilities (i.e., ice rinks), ice time, and coaches available to ensure access and opportunities. This example represents the influences that need to be in place for increased participation in figure skating.

Conversely, without the ability to increase their hours on the ice, due to limited availability of facilities, the skater may not be able to follow through with his/her intent to participate, building upon their increased level of attachment to the elite athlete. Ultimately, each influence needs to build and work off another in order to foster this desire for initial, continued, or increased sport participation.

These Games provided a window of opportunity for skaters to become involved and knowledgeable about the sport. With full access to athletes, through media (e.g., television productions, newspaper articles, social media), sport participants had the opportunity to follow the Games closer than ever before.

Who, What, Where, When, and Why

Five questions were posed by Potwarka and McCarville (2010) in regards to directions for TDE studies. Again, these questions were:

1. Who (i.e., which members of a population) will alter their activity levels in response to the Olympics?
2. What activities will the Olympics influence/alter among host residents?
3. Where (i.e., in which geographic regions) will the Olympics influence host residents' participation rates?
4. When (i.e., at what time either before, during, or after the event) will the Olympics influence host residents' participation rate?
5. Why might the Olympics make host residents more active? (Potwarka & McCarville, 2010, p. 182)

In answering the research questions which guided the study, these five questions were also answered in the case of the Vancouver 2010 Olympic Winter Games. In evaluating

the literature review conducted in Chapter III, the data confirmed and denied the expectations also presented in Chapter III. The following section addresses each of these questions posed by Potwarka and McCarville (2010), as well as compares the data to the findings of previous studies.

1. Who will alter their activity levels in response to the Olympic Games?

The definition of the TDE proposed by Hindson et al. (1994) is that hosting a Major Games "will result in increasing numbers of people taking up these sports, increased membership of clubs in the respective sports and higher performance aspirations on the part of club members" (p. 17). While many of the previous studies conducted on the subject address the absence of a TDE resulting from hosting a Major Games, these studies only focus on sport participation in the context of increasing the number of sport participants (cf. Boardley, 2013; Hogan & Norton, 2000; Mansfield et al., 2010; Pringle, 2001). These studies have left out one important element of the original definition of the TDE, in a sport context, this being "higher performance aspirations on the part of club members" (Hindson et al., 1994, p. 17).

While the number of figure skating participants did not increase in a sustained manner, those who were already active experienced these higher performance aspirations. As evidenced with many of the themes and subthemes emerging from the data, those who were already active in the sport became more motivated and inspired to become even more active, practice harder, and/or take the sport 'more seriously.' With all research participants addressing Personal Influences discussed in Chapter VI, there is a clear impact on those who were already active in the sport. In many cases, regardless of Canadian athletes' success, those who were already skating participants at the time

became inspired by the performances of athletes competing in Canada at the Vancouver 2010 Olympic Winter Games.

With being able to view the skills of the top competitors in figure skating, current sport participants developed a sense of emulation and drive to work towards becoming a future competitor at the Olympic Winter Games. This is how the TDE of hosting a Major Games can best reach mass sport, by influencing those who are already active. This sense of excitement and ability to view the achievements of the world's top competitors, occurring within one's own country, is what motivated those already active in the sport.

Again, this reinforces Mansfield et al.'s (2010) findings that one of the potential outcomes of the demonstration effect is that sport participants will participate more frequently, following the hosting of a Major Games. As was demonstrated in Chapter VI, those who were already active in the sport became even more active. Based on the research, there were many cases of athletes who became motivated to accomplish their dreams of becoming international competitors, due to the hosting of the Vancouver 2010 Olympic Winter Games. This increased motivation, in many cases, resulted in increased sport participation. Although Mansfield et al. (2010) found that the demonstration effect encourages infrequent participants to become active again, these findings showed that those who did not consider themselves to be infrequent participants, spent more time on the ice and increased their level of physical activity. Based on the findings of my study, the answer to the question of "Who will alter their activity levels in response to the Olympic Games?" (Potwarka & McCarville, 2010, p. 182), it is those who were already active in the sport.

2. What activities will the Olympic Games influence/alter among host residents?

While the question asks what activities will the Olympic Games influence/alter among host residents, the research conducted for this study did not include non-sport-participants. Because of this, the question needs to be altered in this case to 'What activities will the Olympic Games influence/alter among host residents who are currently active in sport?' With this alteration, the question can become more applicable to the sampled research participants in this particular study.

One strategy that leaders of the Olympic Games may use to influence host residents could be social media. According to the International Olympic Committee (2015), there were over "two billion impressions across all Olympic [social media] platforms" during the Sochi 2014 Olympic Winter Games (para. 1). The International Olympic Committee (2015) also noted that "More than 2 million new fans joined the Olympic Facebook Page during the [Sochi] Olympic Games, the Olympic Twitter Account amassed 168,101 new followers, [and] the Olympic Instagram account gained more than 150,000 new followers" (para. 3). This increased social media following the exposure of the Games to all new followers, and as De Bosscher et al. (2013) finds, this increased exposure may potentially increase sport participation.

While this increase in social media activity may not necessarily seem positive when trying to motivate people to become active and get away from their cellular phones, tablets, and computers, the connection that the sport participants can develop with the elite athletes can contribute to an increased sense of motivation. As stated in Chapter VI, the social media connection and attachment that some sport participants develop towards their sport role models can inspire them on and off the ice. With being able to see their elite role models in their daily lives, including the preparation and training that is required

to become a top international competitor, this could motivate these sport participants to emulate their heroes and train harder and more often. With the increased use of social media, either by following the athletes themselves, or event organizers to showcase what happens behind the scenes, this social media connection may result in the likelihood of increased sport participation.

3. Where (i.e., in which geographic regions) will the Olympic Games influence host residents' participation rates?

As previously covered, some scholars find that locations surrounding the epicentre of a Major Games are the most likely to experience an increase in sport participation (Bauman et al., 2003). This, however, was not the case in Canada. As evident in Chapter V, the British Columbia/Yukon region did not experience any growth following the Vancouver 2010 Olympic Winter Games. While the region did experience an increase in figure skating membership leading up to the Games, this increase was not sustained. Just three seasons following the Vancouver 2010 Olympic Winter Games, club membership was at an eight season low. While the excitement for the Vancouver 2010 Olympic Winter Games may have motivated more people to take up the sport, this motivation was not sustained, even just one season following these Games, contradicting the findings by Bauman et al. (2003).

Also discussed in Chapter V, the region of Alberta/Northwest Territories/Nunavut experienced the largest increase of figure skating members over the time period of the study, higher than any other region. One reason which may explain why figure skating membership increased the most in the Alberta/Northwest Territories/Nunavut region may be because of the general wealth in this region. According to Statistics Canada (2014),

the median household income in Canada in 2013, the most recent available data, was $76,550. The median household income for the Alberta/Northwest Territories/Nunavut region, after correcting for population density[12], in 2013 was $97,225. This is an increase of $20,675 in Alberta/Northwest Territories/Nunavut compared to the national median. Furthermore, the region of New Brunswick experienced the greatest decrease in figure skating membership in years following the Vancouver 2010 Olympic Winter Games. New Brunswick's median household income is the lowest of all provinces in Canada sitting at $67,340, $9,210 below the national median (Statistics Canada, 2014).

While there were no patterns which emerged from the quantitative findings to suggest that venues closer to an Olympic site may have experienced higher membership rates, specifically in the sport of figure skating, there was evidence to suggest that the wealthier an area is, the more likely they are going to be able to participate in sport. This is supported by Canadian Heritage (2013), as they found that "sport participants are more likely to be found in the higher household income categories than in the lower household income categories." (p. 8).

In comparing the median household incomes of every province and territory, with the change in figure skating membership numbers since the Vancouver 2010 Olympic Winter Games, there is a similarity between rankings of largest household income and largest increase in membership. In Table 14, are the rankings for the median household

[12] Within the total combined population of the region, Alberta accounts for 98.02% of the population, Northwest Territories accounts for 1.10% of the population, and Nunavut accounts for 0.88% of the population. Instead of taking the median household incomes of Alberta ($94,460), Northwest Territories ($106,710), and Nunavut ($65,530) and finding the average between all three, the corresponding population density percentages were used to determine the weighted mean of the medians. For example Alberta ($97,390 x 98.02%) = $95,462 + Northwest Territories ($109,670 x 1.10%) = $1,206 + Nunavut ($63,300 x 0.88%) = $557. Rounded and added together = $97,225 (Statistics Canada, 2014).

income and figure skating membership change since the Vancouver 2010 Olympic Winter Games. As can be seen, most regions rank in a similar position in both median household income and figure skating membership change. The table follows a similar pattern with the exception of British Columbia and Quebec.

Table 14 – Median Household Income / Figure Skating Membership Change (Skate Canada, 2014; Statistics Canada, 2014)

Region	**Median Household Income**	**Region**	**Figure Skating Membership Change**
AB/NWT/NV	$97,225	AB/NWT/NV	9.83%
SK	$82,990	CO	7.09%
ON	$76,510	QC	3.48%
BC/YK	$74,150	SK	1.14%
NF	$73,850	NF	-2.82%
MB	$72,600	PE	-4.19%
QC	$72,240	MB	-9.63%
PE	$70,270	BC/YK	-12.61%
NS	$70,020	NB	-19.84%
NB	$67,340	NS	-22.78%

As Table 14 demonstrates, with two exceptions out of ten regions, areas with higher wealth have experienced a greater increase in figure skating membership, since the Vancouver 2010 Olympic Winter Games. To answer the question "Where (i.e., in which geographic regions) will the Olympic Games influence host residents' participation rates?" (Potwarka & McCarville, 2010, p. 182), the Olympic Games may not act as the strongest influencer, but the ability to afford to participate in organized sport does. Therefore, any wealthier region is the area most likely to be influenced to enroll in sport, by the hosting of Major Games.

4. When (i.e., what time either before, during, or after the event) will the Olympic Games influence host residents' participation rates?

While literature dictates that Major Games sport legacy needs to be observed over a longitudinal period, TDEs can also apply to short-term impact (Preuss, 2007). As previously discussed, impact and legacy have two different meanings when examining the overall effects of an event (Preuss, 2007). While legacy is the long-term view, it can take upwards of 20 or more years to properly evaluate effect on the hosting nation (Mangan, 2008). Impact, however, is more of the short term shock that a country experiences following the hosting of a Major Games (Preuss, 2007).

The season following the Vancouver 2010 Olympic Winter Games was estimated to be the year where figure skating membership numbers increase, based on the exposure of the sport as well as the success of the athletes (De Bosscher et al., 2013). Overall, seven out of the 13 Skate Canada regions experienced an increase in figure skating participation following the Vancouver 2010 Olympic Winter Games. These regions were Alberta/Northwest Territories/Nunavut, Western Ontario, Central Ontario, Eastern Ontario, Quebec, Prince Edward Island, and Newfoundland and Labrador. Of these increases, only Alberta, Central Ontario, Québec, and Newfoundland and Labrador 's highest point in the ten-year data set occurred after the Vancouver 2010 Olympic Winter Games.

It can be stated that the country experienced more of a shock than a long-term legacy in terms of the figure skating participation rates. Although data covered only three seasons following the Vancouver 2010 Olympic Winter Games, after the initial bump in figure skating membership, there was not a sustained increase. This initial bump was the

season following the Vancouver 2010 Olympic Winter Games, where figure skating membership increased by 2.64%. While some may argue that this showed no evidence of a long lasting TDE, the definition of the TDE does not designate a specific time period (Boardley, 2013; Hogan & Norton, 2000; Hindson et al., 1994; Mansfield et al., 2010; Pringle, 2001).

As presented in Chapter I, the original definition of the TDE, as presented by Hindson et al. (1994) states

> it is assumed that the high profile of successful Olympic athletes will have a 'trickle-down' effect and will result in increasing numbers of people taking up these sports, increased membership of clubs in the respective sports and higher performance aspirations on the part of club members. (p. 17)

Nowhere in this definition, or in Hindson et al.'s (1994) study, is there a discussion of a timeline to measure the TDE. Since there is no inclusion of a time element in this definition, it becomes difficult to determine if a TDE properly occurred. One could argue that grassroots figure skating participation did experience a TDE from hosting the Vancouver 2010 Olympic Winter Games since membership numbers increased the season following the Games. Since figure skating membership rates became stagnant two seasons following the Vancouver 2010 Olympic Winter Games, as well as the total number of figure skaters dropping below the pre-Vancouver 2010 Olympic Winter Games statistics, three seasons following the Games, there needs to be a definition including a timeframe for the TDE to be realized.

An example of a timeline could be from one Olympic Games to the next. If sport participation were to rise in the season following the hosting of a Major Games, and at

the least remain stagnant, in that those who are already participating, stay within the sport, until the next Olympic Games, then there would be a continued sustained growth in the sport. To propose a new definition of the TDE would be to include a timeframe for the TDE to be realized. This timeframe would be from the hosting of the domestic Olympic Games, to the following international Olympic Games.

In comparing the short-term and the long-term outlooks regarding the TDE of the Vancouver 2010 Olympic Winter Games, it is clear that the Games did have a short term impact, focused in specific regions, as well as the nation as a whole. This short term shock presented by Preuss (2007), and corresponding nominal increase in figure skating participation rates, is what occurred in Canada following the Vancouver Games. Compared to the timeline presented by Mangan (2008), however, my findings demonstrated that figure skating participation rates have not been sustained, therefore no TDEs. Therefore, to answer the question "When (i.e., what time either before, during, or after the event) will the Olympic Games influence host residents' participation rates?" (Potwarka & McCarville, 2010, p. 182), the time immediately following the hosting of a Major Event, is most likely to experience an increase in participation. The following one or two seasons may experience increases in participation, however, it is likely that, unless properly leveraged, interest and therefore participation in the sport will not increase.

5. Why might the Olympic Games make host residents more active?

The question "Why might the Olympic Games make host residents more active?" (Potwarka & McCarville, 2010, p. 182) is the most difficult of these five to answer. As evident throughout the qualitative data analysis, there are several reasons why hosting an Olympic Games may lead people to become more active, at least for those who were

already active. The ability to pinpoint one exact reason why hosting an Olympic Games may make host residents more active, however, is still unclear. Combining all of the findings, there are several resulting effects of hosting an Olympic Games.

As discussed in Chapter VI, an Olympic Games can provide motivation, inspiration, and desire to compete at an elite level. This increased motivation can result in those who are already active in the sport to become even more active. The increased sense of inspiration can result in a boost of confidence in those who are just beginning the sport. This desire to compete at an elite level can result in sport participants elevating their athletic aspirations. These Personal Influences which can emerge from hosting and viewing an Olympic Games are contributing factors to increasing sport participation for those already active in the sport.

Combining all of the aspects of the stories, accomplishments, and exposure granted of athletes and to sports resulting from hosting the Vancouver 2010 Olympic Winter Games, this is likely the reason why there is the belief that hosting a Major Games can stimulate sport participation (Cashman, 2006; De Bosscher et al., 2013; Truno, 1995). Similar to previous studies, the overall access to the sport, in terms of being able to watch events that are not normally broadcasted is the main reason why the interest in sport can peak during an Olympic Games (Cashman, 2006; De Bosscher et al., 2013; Truno, 1995). In terms of Olympic Influences, combined with Organizational Influences, these are arguably the main reasons why the interest in the sport increases, because there is more awareness generated for all sport. While figure skating membership experienced only a slight increase in Canada, these are reasons to believe why hosting a Major Games could increase participation in other sports.

Therefore, to answer the question "Why might the Olympic Games make host residents more active?" (Potwarka & McCarville, 2010, p. 182), there are several reasons that could have influenced other sports, as well as could result in future Major Games held in Canada. There is no single reason why Canadians may become more active following the Vancouver 2010 Olympic Winter Games, or any future Major Games. With the increased sense of motivation, inspiration, and emulation, the increased national pride, and their possible connection to sport participation, as well as the increased media coverage of sports not typically seen in Canada, Canadians may be involved in sport participation following the hosting of a Major Games.

Recommendations

In order to capitalize on the increased interest which is generated following the hosting of a Major Games, or even the viewing a Major Games not held in the country, there are several recommendations which NSOs, P/TSOs, and CSOs should consider. Many of these recommendations can be easily achieved based on the already viable infrastructure and resources available to these sport organizations. While these recommendations may not necessarily guarantee increased sport participation following a Major Games, these initiatives can help turn the increased interest, into active participation. The following paragraphs present these recommendations to be considered in trying to increase sport participation, including effective marketing strategies, the development of bridging programs, determining the requirements of coaching, as well as school involvement.

Effective Marketing

In Hindson et al.'s (1994) study, the researchers found that, out of 35 clubs researched, only 15 indicated that the Olympic Games had an effect on their clubs. Furthermore, only four clubs "reported that they had used the Olympics as a marketing/promotions tool" (Hindson et al., 1994, p. 19). Also, Hindson et al. (1994) found that only five clubs "organised events or activities centred around Olympic events or telecasts." (p. 19). Hindson et al. (1994) go on to conclude that "it appears that a lack of innovative marketing is in part responsible for the failure of clubs to significantly boost club membership in the wake of the Olympics." (p. 20). Based on the interviews with coaches and administrators, these findings by Hindson et al. (1994) are very similar to this study's data.

Not many clubs discussed the use of developing programming or marketing strategies focused around the Olympic Games. In only a few cases, including one club which featured an Olympic athlete, did clubs hold viewing parties, or created Olympic-themed programming for the two weeks during the Games. There was little effort to proactively use the Olympic Games in increasing their own members' knowledge and excitement of the Games and its athletes. These types of activities could be important for clubs during the Olympic Games to increase the members' exposure to the sport and the athletes, so that they can watch and become motivated to enhance their participation.

One such strategy which was often discussed throughout data collection was that of word-of-mouth marketing. Word-of-mouth marketing is "oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service" (Buttle, 1998, p. 242). This type

of marketing strategy can be useful in recruiting those who are already interested in the sport, however may not be the best to reach the masses.

While word-of-mouth marketing is successful in influencing potential consumers, or sport participants, CSOs cannot depend on this strategy because it does not reach a large enough target (Allsop, Bassett, & Hoskins, 2007). Those who are already interested in the sport may benefit most from consultation with their peers about which club may be the best to join, however word-of-mouth marketing may not likely affect non-users, or those who are not aware of the programming (Allsop et al., 2007; De Reyck, & Degraeve, 2002). This word-of-mouth marketing can be effective in influencing people who are considering membership, but CSOs need to develop interest among people to think about joining their clubs (Bughin, Doogan, & Vetvik, 2010). While focusing on existing programming is a strong system to ensure membership retention, there needs to be efforts devoted to draw new participants as well.

As stated by Hindson et al. (1994), "the nature of the modern Olympics suggest that if they are to benefit from this phenomenon, sports clubs should consider how to *create* marketing opportunities" (p. 20). It is not the sole responsibility of the NSO and P/TSOs to market the sport to their respective regions. It is equally important that CSOs help market the sport, and their club within their community in order to increase the visibility of the club. CSOs must exploit the Games in a creative manner and develop marketing campaigns while interest is peaked based on the increased exposure granted to the sport. Therefore, in order to capitalize on the hosting of a Major Games, CSOs must proactively market themselves, within their community, while the general population's focus is on sport. This increased exposure of the respective sport resulting from a Major

Games, combined with a proactive marketing campaign can draw more members to a club, and increase sport participants.

Bridging Programs

As has been discussed, the main Restrictive Influence to organized sport participation is that of cost. According to KidSport Canada (2014), "one-third of children do not participate in any form of organized sport largely due to cost." (p. 7). Furthermore, as has also been discussed, the cost of a sport such as figure skating can be upwards of tens-of-thousands of dollars (Druzin, 2009). If costs could be decreased, more children could potentially participate in sport. This scenario is unlikely to come to fruition because of the facility costs, coaching costs and equipment costs required for participation. There are, however, some strategies that can be used to help alleviate some of these costs.

As was discussed by several research participants, the fee for CanSkate is relatively affordable. Where many of the figure skating participants drop out of the sport, according to club administrators and coaches, is when skaters graduate from the CanSkate system and enter the STARSkate teaching stream. With this placement into a more specialized program, that being STARSkate, comes an increase in prices, according to research participants. Many athletes discussed the choice that had to be made; either continue skating at a lower level, or give up other sports in which they were already active in, mainly because of the increase in fees. This additional cost of becoming sport specific is likely the main deterrent for athletes to continue in the sport, and cause these participants to drop out. There is, however, a better way to alleviate the costs.

A strategy that includes a bridging system where costs incrementally increase from skill level to skill level can help parents keep their children enrolled in the sport, rather than facing a significant increase in dollars between CanSkate and STARSkate programs. This is a strategy that only a few coaches and administrators claimed their club offered, some sort of bridging program. A bridging program, where a participant can take incremental steps into the sport, without having to fully commit financially is a strategy that CSOs need to consider, in order to address the increased costs. Instead of having a skater graduate directly from CanSkate and enter the STARSkate stream, there should be a more of a gradual progression. In this gradual progression of activities and coaching techniques, there can also be a gradual progression of fees. Instead of charging an additional $500 for a skater to join a high level STARSkate, following CanSkate, should have four development stages, each with a smaller increase in fees.

As an example a Skate Canada Club currently offers two different levels of STARSkate lessons in their current season. For their first STARSkate tier, the "Jr. Star" 15-day package, the cost is $420. After this, the rates for the second tier STARSkate lessons, the "Sr. Star" 15-day package, the cost is $780, a $360 jump between programs (Skate Canada, 2015). If there were more steps within this tiered system, then more skaters may be able to advance their skills, while not having to accrue hundreds of more dollars in costs.

Currently, Skate Canada identifies five steps in its Long Term Athlete Development Strategy for young skaters, plus an additional stage for lifelong sport participants (Skate Canada, 2010). These stages for young skaters are Learn to Skate, Learn to Train, Learn to Compete, Train to Compete, Learn to Win/Live to Win,

followed with Active for Life (Skate Canada, 2010). With these stages already set by Skate Canada, clubs should follow these progression levels, not only for developing athletes, but for costs in a bridging program. The following are proposed progression levels of such a program:

- CanSkate - Learn to Skate - $X (fee up to the discretion of the specific club)
- STARSkate Junior – Learn to Train - + $125 (registration fees compared to CanSkate)
- STARSkate Preliminary – Learn to Compete - +$250 (registration fees compared to CanSkate)
- STARSkate Intermediate – Train to Compete- +$375 (registration fees compared to CanSkate)
- STARSkate Senior – Learn to Win/Live to Win - +$500 (registration fees compared to CanSkate)

Although over the course of the progression, the costs would equal an additional $500, the rise in fees would be incremental. This may allow some participants to stay active in the sport, as they can choose the level at which they would like to compete. With these bridging programs in place, more participants may continue their involvement in figure skating. All CSOs should offer these programs in order to maximize the number of sport participants.

Ease of Coaching

Not only is it difficult for some participants to afford the costs involved in figure skating (e.g., time, coaching, equipment, membership), it is difficult to become a Skate Canada certified coach, due to the fees and testing requirements. These hinder the

availability of coaches across the country, therefore decreasing the amount of hours than can be dedicated to teaching and promoting the participation of figure skaters. With a fewer number of coaches, there is a higher demand; therefore allowing coaches to charge higher fees per session.

With an increased number of coaches, skaters may have more affordable options. Training more coaches at reasonable fees is another strategy that can be used to further decrease costs for participants, and therefore reduce one barrier to access figure skating.

Skate Canada must make it easier for current coaches to remain involved, and increase the access for prospective coaches to join the sport. Although the current system provides quality control for higher level coaches, those who are able to teach the beginner level skills may not necessarily need such experienced qualifications. Requirements such as Police Records Checks, and references should still be required to ensure safety for the participants, however, many of the costs and time fulfillments can be overwhelming for young people wanting to become coaches.

School Involvement

The final recommendation targets CSOs and their need to try to better integrate with local schools in their community. One of the subthemes that was uncovered from the data is that if you are Canadian, you should be able to skate and that skating is a life skill. In learning a life skill, schools' physical education curriculum should cover skating skills. By learning the essential skills in school, children can be initiated to skating at a young age, likely with little additional costs for parents.

If Skate Canada and the respective regional P/TSOs could introduce their 'learn to skate' services into the school setting, children would be exposed to figure skating in

their school. In order to gain exposure within their own communities, CSOs should partner with local schools and provide figure skating opportunities to youth. By exposing youth to figure skating, these youth may become long term sport participants (Perkins, Jacobs, Barber, & Eccles, 2004). .

Literature Gap

In terms of addressing the literature gap, this study accomplished two overall objectives. The first is that by utilizing sport participation statistics, this study has similar quantitative methodology to that of other studies in this subject (De Bosscher et al., 2013; Frawley & Cush, 2010; Truno, 1995). Since Potwarka and McCarville (2010) have found that there are no underlying substantive methodologies for how to study this topic, it is best to keep consistent with how previous studies have analyzed their data. As participation data were used to compare pre-, during-, and post-event periods in these previous studies, the same method has been used in this study (De Bosscher et al., 2013; Frawley & Cush, 2010; Truno, 1995). In continuing to build substantive methodology, utilizing sport participation rates from pre-, during-, and post-event periods should be used when measuring the impact of hosting a Major Games. As more of these studies are completed, the use of consistent methodology within the research can ensure that findings are all consistently measured. Therefore, as this study contributes to the TDE subject, it adds reinforcement to the use of these consistent research methods also used in previous studies.

The second objective of this study was to research the effect that hosting a Major Games had on those already enrolled in the sport. As previously discussed one aspect that is commonly overlooked in studies within the TDE subject, was the sense of

increased motivation for higher performance aspirations (Hindson et al., 1994). With this study contributing to TDE literature, especially relating specifically to the Vancouver 2010 Olympic Winter Games and Canadian sport participants, this study added insights into the TDE from a qualitative point of view. As studies focused on the TDE of hosting a Major Games on already active athletes have not been found, this study contributed to understanding the impact of Olympic Games on already active sport participants.

Limitations

While this study contributed to the lack of substantial methodology in the subject, there were some limitations which may have differentiated the results (Potwarka & McCarville, 2010). The first limitation is where interviews were conducted. While the region of Alberta/Northwest Territories/Nunavut was selected because the region experienced the highest increase in the past ten seasons of any region, it also would have been interesting to interview figure skating participants from all over the country. More specifically, it would have been advantageous to interview athletes from New Brunswick or Nova Scotia because in those regions, figure skating participation decreased in the seasons following the Olympic Winter Games. If interviews held with athletes, coaches, and administrators could have been held in these regions as well, it would have made for a strong comparison between a region of increased participation and regions of decreased participation. With budget and time restrictions of the researcher, travel could not be made to these respective regions.

Another limitation is the sport of study. After reviewing the choice of figure skating, it would have been beneficial to have selected a sport in which Canada was not successful, therefore observing if hosting such an event by itself could have improved

sport participation statistics. The problem with selecting the sport of figure skating is that, although Canada was successful at the Vancouver Games, athletes' success may have played a role in inspiring those who became active rather than just because the event was in Canada. Throughout the interview process, questions were asked to focus on just hosting, such as "Even if Canada was not successful at these Games in the sport of figure skating, would you have been inspired?", however these types of questions can be difficult to reflect and answer, hypothetically. Picking a sport in which Canada did not medal during the Vancouver 2010 Olympic Winter Games, such as cross-country skiing, may have yielded different results in trying to find out if hosting a Major Event can increase sport participation, without having to consider Canadian athletes' success playing a factor as well.

Furthermore, another limitation which may have affected participation rates is the level of funding that Skate Canada invested in the sport as well as the funding of the P/TSOs invested in their respective regions. The investment that these organizations made toward promoting and developing figure skating in specific regions may have influenced the extent to which people become active (or not) in figure skating. With higher dollars dedicated to promoting and developing figure skating, this could have led to an increase in sport participation; however the financial/budget data of the organizations were not included in the study.

Direction for Future Research

One area which has been underserved within this topic is 'how to properly leverage the Olympic Games to increase sport participation,' coming from the CSO perspective. While many studies conclude that nations must be proactive in leveraging a

Major Games to increase sport participation, there is little instruction on how to go about doing this (Coalter, 2004; 2007; Leopkey & Parent, 2012; Homma & Masumoto, 2013). Furthermore, there is little instruction on how to successfully leverage a Major Games from the CSO perspective. While studies can claim that CSOs should use Major Games to help draw new members, there is little support and clarity in best practices and recommendations for such projects. Since many CSOs are run by volunteers, there needs to be research on how best to effectively utilize the Mega-Event in marketing strategies with the goal of increasing the visibility of the CSO within its community. Therefore, the proposed direction for future research is to examine CSOs that have successfully leveraged the Olympic Games within their community to enhance membership and determine a best practices for other CSOs to utilize.

Another direction for future research is to study the effect that hosting a Major Games has on non-sport participants. While this research was directed at those who were already active in sport, it would be interesting to see if the results differ with those who consider themselves inactive in sport. With that sample group, more findings could have been uncovered related to the festival effect when compared to this study's findings, mostly related to the demonstration effect. This type of study can also contribute knowledge and understanding on why people may be or remain sedentary following the hosting of a Major Games.

Final Remarks

Based on previous studies and the overall understanding of the TDE, Canada may not have been successful in utilizing the Vancouver 2010 Olympic Winter Games to increase sport participation based on the lack of sustained activity in terms of sport

membership (Boardley, 2013; Hogan & Norton, 2000; Mansfield et al., 2010; Potwarka & McCarville, 2010; Pringle, 2001). This research however, indicates the Vancouver 2010 Olympic Winter Games were successful because of the increased motivation for those already active in the sport. Figure skating participants who were already active became even more active, or at the very least, became more motivated by the Vancouver 2010 Olympic Winter Games. Over time, it will be interesting to see if any of those young skaters who watched the Vancouver 2010 Olympic Winter Games and thought 'I want to be there someday' will make the Olympic team. This relates back to Mangan's (2008) claims in that it takes 20 years to truly understand the legacy of a Major Games. Many future Canadian Olympic athletes may have been inspired by the feats of this generation's success.

While the Vancouver 2010 Olympic Winter Games presented an amazing opportunity for sport organizations to market their respective sport to the masses, very few utilized the increased interest in sport to proactively recruit new sport participants. After the Olympic Winter Games, there were no advertisements on television that encouraged Canadians to "Go Snowboarding" or "Go Speed Skating." As stated throughout, the summer and winter Olympic Games provide an opportunity for sport organizations to market their sport to the masses. In the case of figure skating in Canada, however, the NSO, most P/TSOs, and most CSOs, were not able to successfully leverage and maintain the increased interest in figure skating.

With Olympic Games becoming more and more extravagant (Hume, 2013; Murray, 2014), there needs to be a greater return on investment in terms of societal impacts, lasting longer than the duration of the event. This return on investment in the

form of increased physical activity and sport participation among the population can partially justify the spending of billions of dollars on these types of events. Therefore, if a country wins the bid to host an Olympic Games, it must not stand back and wait for the return, it must be proactive and aggressively reach towards accomplishing goals of increased sport participation.

References

Adelman, I. (1975). Development economics – A reassessment of goals. *The American Economic Review, 65*(2), 302-309.

Aghion, P., & Bolton, P. (1997). A theory of Trickle-Down growth and development. *Review of Economic Studies, 64*(2), 151-172.

Allsop, D. T., Bassett, B. R., & Hoskins, J. A. (2007). Word-of-mouth research: principles and applications. *Journal of Advertising Research, 47*(4), 398.

Arndt, H.W. (1983). The "Trickle-Down" myth. *Economic Development and Cultural Change, 32*(1), 1-10.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Basu, S., & Mallick, S. (2007). When does growth trickle down to the poor? The Indian case. *Cambridge Journal of Economics, 32*, 461-477.

Bauman, A., Armstrong, T., & Davies, J. (2003). Trends in physical in physical activity participation and the impact of integrated campaigns among Australian adults, 1997-1999. *Australian and New Zealand Journal of Public Health, 27*, 76-79.

Bauman, A., Phongsavan, P., Schoeppe, S., & Owen, N. (2006). Physical activity measurement- a primer for health promotion. *Promotion and Education, 13*(2), 92-103.

Boardley, I.D. (2013). Can viewing London 2012 influence sport participation? – A viewpoint based on relevant theory. *International Journal of Sport Policy and Politics, 5*(2), 245-256.

British Broadcasting Corporation. (2013, February 12). London Olympics: People playing sport rises after Games. BBC News. Retrieved from http://www.bbc.com/news/uk-wales-21423711

Brustad, R.J. (1993). Who will go out and play? Parental and psychological influences on children's attraction to physical activity. *Pediatric Science, 5*, 210-223.

Bughin, J., Doogan, J., & Vetvik, O. J. (2010). A new way to measure word-of-mouth marketing. *McKinsey Quarterly, 2*, 113-116.

Buttle, F. A. (1998). Word of mouth: understanding and managing referral marketing. *Journal of strategic marketing, 6*(3), 241-254.

Canadian Curling Association. (2014). Mandate and mission. Retrieved from http://www.curling.ca/about-the-cca/what-we-do/our-mandate-and-mission/

Canadian Heritage. (2013). *Sport participation 2010: Research paper*. Toronto, ON: Author. Retrieved from http://publications.gc.ca/collections/collection_2013/pc-ch/CH24-1-2012-eng.pdf

Canadian Olympic Committee. (2013). 2010 Vancouver. Retrieved from http://olympic.ca/games/2010-vancouver/

Canadian Olympic Committee. (2013). Patrick Chan. Retrieved from http://olympic.ca/team-canada/patrick-chan/

Canadian Olympic Committee. (2013). Scott Moir. Retrieved http://olympic.ca/team-canada/scott-moir/

Canadian Olympic Committee. (2013). Tessa Virtue. Retrieved from http://olympic.ca/team-canada/tessa-virtue/

Canadian Olympic Committee. (2014). Joannie Rochette. Retrieved from http://olympic.ca/team-canada/joannie-rochette/

Canadian Olympic Committee. (2014). 2014 Sochi. Retrieved from http://olympic.ca/games/2014-sochi/

Canadian Olympic Committee. (2015). 1988 Calgary. Retrieved from http://olympic.ca/games/1988-calgary/

Canadian Newsstand Major Dailies. (2015). Tessa Virtue Scott Moir. Retrieved from http://search.proquest.com.proxy.library.brocku.ca/canadiannewsmajor/results/DAE596B2DCE8467CPQ/1/$7b$22limiters$22:$5b$5d,$22v$22:$221$22,$22sort$22:$22relevance$22,$22param$22:$7b$22NAVIGATORS$22:$22navsummarynav,sourcetypenav,pubtitlenav,objecttypenav,languagenav$28filter$3d200$2f0$2f*$29,decadenav$28filter$3d110$2f0$2f*,sort$3dname$2fascending$29,yearnav$28filter$3d1100$2f0$2f*,sort$3dname$2fascending$29,yearmonthnav$28filter$3d120$2f0$2f*,sort$3dname$2fascending$29,monthnav$28sort$3dname$2fascending$29,daynav$28sort$3dname$2fascending$29$22,$22RS$22:$22OP$22,$22chunkSize$22:$2220$22,$22instance$22:$22prod.academic$22,$22ftblock$22:$22740842+1+113+34113+670831+670829+34000+660843+34001+660840$22,$22removeDuplicates$22:$22true$22$7d,$22serializer$22:$22std1.4$22,$22searchterms$22:$5b$7b$22name$22:$22$22,$22qry$22:$22tessa+virtue+scott+moir$22,$22fld$22:$22citationBody$22,$22top$22:$22AND$22$7d$5d,$22meta$22:$7b$22UsageSearchMode$22:$22Advanced$22,$22dbselections$22:$221007211$22,$22SEARCH_ID_TIMESTAMP$22:$221431482753253$22,$22fdbok$22:$22N$22,$22siteLimiters$22:$22SourceType,+DocumentType,+Language$22$7d,$22querytype$22:$22advanced:canadiannewsmajor$22$7d?accountid=9744

Canadian Tire Jumpstart. (2014). Frequently Asked Questions. Retrieved from http://jumpstart.canadiantire.ca/en/how-we-help/frequently-asked-questions

Cashman, R. (2006). *Olympic legacy: The bitter-sweet awakening: The legacy of the Sydney 2000 Olympic Games.* Petersham, AU: Walla Walla Press.

CBC. (2013, June 4). Skate Canada hired Dan Thomson as CEO. Retrieved from www.cbc.ca/m/sports/figureskating/skate-canada-hires-dan-thompson-as-ceo-1.1415167

CBC News (2003, July 2). Vancouver-Whistler to host 2010 Winter Olympics. Retrieved from http://www.cbc.ca/news/world/vancouver-whistler-to-host-2010-winter-olympics-1.363618

Cervelló, E., Escartí, A., & Guzmán, J. (2007). Youth sport dropout from the achievement goal theory. *Psicothema, 19*(1), 65-71.

Coalter, F. (2004). Stuck in the blocks? A sustainable sporting legacy. In A. Vigor, M. Mean, & C. Tims (Eds.), *After the goldrush: A sustainable Olympics for London* (pp. 93-108). London, UK: Institute for Public Policy Research and Demos.

Coalter, F. (2007). London Olympics 2012: 'the catalyst that inspires people to lead more active lives'? *The Journal of the Royal Society for the Promotion of Health, 127*(3), 109-110.

Community Development Consultants. (2006). *City of Calgary Ice Arena Study.* Calgary, AB: Author. Retrieved from http://www.calgary.ca/csps/recreation/documents/arenas/arena-ice-study-report-2006.pdf?noredirect=1

Corus Entertainment. (2013). Tessa & Scott. *W Network*. Retrieved from http://www.wnetwork.com/shows/tessa-scott

Côté, J. (1999). The Influence of the Family in the Development of Talent in Sport. *The Sport Psychologist, 13,* 395-417.

Creswell, J. (2012). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). London, UK: Sage.

Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2nd ed.). Thousand Oaks, CA: Sage.

De Bosscher, V., Sotiriadou, P., & van Bottenburg, M. (2013). Scrutinizing the sport pyramid metaphor: an examination of the relationship between elite success and mass participation in Flanders. *International Journal of Sport Policy and Politics, 5*(3), 319-339.

De Bosscher, V., & van Bottenburg, M. (2011). *Elite for all, all for elite? An assessment of the impact of sport development on elite sport success.* In: B. Houlihan, ed. Handbook on sport development. London: Routledge, 575–595.

De Reyck, B., & Degraeve, Z. (2002). Broadcast scheduling for precision marketing.

Department for Culture, Media and Sport. (2014, April 1). Creating a lasting legacy from the 2012 Olympic and Paralympic Games. Retrieved from https://www.gov.uk/government/policies/creating-a-lasting-legacy-from-the-2012-olympic-and-paralympic-games/supporting-pages/sport-and-healthy-living

Dollar, D., & Kraay, A. (2002). Growth is good for the poor. *Journal of Economic Growth, 7,* 195-225.

Donnelly, P., & Harvey, J. (1996) *Overcoming Systemic Barriers to Access in Active Living.* Toronto, ON: Author. Retrieved from http://www.physical.utoronto.ca/docs/csps-pdfs/CSPS_Working_Paper_1_-_Overcoming_Systematic_Barriers_to_Access_in_Active_Living.pdf?sfvrsn=0

Druzin, R. (2009, January 14). Staggering skating figures. *CBC*. Retrieved from http://www.cbc.ca/sports/figureskating/staggering-skating-figures-1.797786

Fan, S., Hazell, P., & Thorat, S. (2000). Government spending, growth and poverty in rural India, *American Journal of Agricultural Economics*, *82*, 1038-1051.

Figureskating Boutique. (2013). Figureskating Boutique. Retrieved from http://www.skatingboutique.com

Frawley, S., & Cush, A. (2011). Major sport events and participation legacy: the case of the 2003 Rugby World Cup. *Managing Leisure, 16*(1), 65-76.

Frawley, S., Veal, A.J., Cashman, R., & Toohey, K. (2009). 'Sport For All' and major sporting events: Introduction to the project. *School of Leisure, Sport and Tourism Working Paper 5*, Sydney, Australia: University of Technology Sydney.

Gaboriau, P. (1991). Les trois âges du vélo en France. Vingtième Siècle. *Revue d'Histoire*, *29* (1), 17-34.

Gedam, R. (1989). *Facets of economic development*. New Delhi, IN: Ashish Publishing House.

Gibson, O. (2013, June 14). Fewer adults playing sport since London Olympics. *The Guardian*. Retrieved from http://www.theguardian.com/uk/2013/jun/13/fewer-playing-sport-since-london-olympics

Government of Canada. (2009). Canada's Games, Timeline. Retrieved from http://www.canada2010.gc.ca/101/tmln/010101-eng.cfm

Government of the United Kingdom. (2014). *Moving more, living more: The physical activity Olympic and Paralympic legacy for the nation*. London, UK: Author.

Green, B.C. (2005). Building sport programs to optimize athlete recruitment, retention and transition: Toward a normative theory of sport development. *Journal of Sport Management*, *19*, 233-253.

Grix, J., & Carmichael, F. (2012). Why do governments invest in elite sport? A polemic. *International Journal of Sport Policy and Politics*, *4*(1), 73-90.

Hanstad, D.V., & Skille, E.A. (2010). Does elite sport develop mass sport? A Norwegian case study. *Scandinavian Sport Studies Forum, 1*, 51-68.

Hart, S. (2012, June 12). London 2012 Olympic and Paralympic Games success brings record sport participation around England. *The Telegraph*. Retrieved from http://www.telegraph.co.uk/sport/olympics/9726783/London-2012-Olympic-and-Paralympic-Games-success-brings-record-sport-participation-around-England.html

Hegaard, H., Hedegaard, M., Damm, P., Ottesen, B., Petersson, K., & Henriksen, T.B. (2008). Leisure time physical activity is associated with a reduced risk of preterm delivery. *American Journal of Obstetrics and Gynecology, 198*(2), 180.e1-180.e5

Hesse-Biber, S.N., & Leavy, P. (2011). *The practice of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.

Hindson, A., Gidlow, B., & Peebles, C. (1994). The trickledown effect of top-level sport: Myth or reality? A case study of the Olympics. *Australian Leisure and Recreation*, *4*(1), 16-24.

Hogan, K., & Norton, K. (2000). The 'price' of Olympic gold. *Journal of Science and Medicine in Sport, 3*(2), 203-218.

Holt, R P.F., & Greenwood, D. T. (2012). Negative Trickle-Down and the financial crisis of 2008. *Journal of Economic Issues, 46*(2), 363-370.

Homma, K., & Masumoto, N. (2013). A theoretical approach for the Olympic legacy study focusing on sustainable sport legacy. *The International Journal of the History of Sport, 30*(12), 1455-1471.

Hsiao, C. (2003). *Analysis of panel data*. Cambridge, UK: Cambridge University Press.

Hume, M. (2013, October 23). Vancouver Olympics worth the $7-billion price tag, study says. *The Globe and Mail*. Retrieved from http://www.theglobeandmail.com/news/british-columbia/vancouver-olympics-worth-the-7-billion-price-tag-study-says/article15036916/

International Luge Federation. (2014). Artificial tracks. Retrieved from http://www.fil-luge.org/index.php?id=400

International Olympic Committee. (2011). Factsheet. Vancouver facts and figures. Updated February 2011. Retrieved from http://www.olympic.org/Documents/Games_Vancouver_2010/Factsheet_Vancouver_legacy_February_2011_eng.pdf

International Olympic Committee. (2013). Olympic Games. Retrieved from http://www.olympic.org/olympic-games

International Olympic Committee. (2013). *Olympic Charter*. Lausanne, CH: Author. Retrieved from http://www.olympic.org/documents/olympic_charter_en.pdf

International Olympic Committee. (2013). *Olympic marketing fact file*. Lausanne, CH: Author. Retrieved from www.olympic.org/Documents/IOC_Marketing/OLYMPIC_MARKETING_FACT_FILE_2013.PDF

International Olympic Committee. (2013). *Olympism in action: Sport serving mankind*. Lausanne, CH: Author. Retrieved from http://www.olympic.org/documents/olympism_in_action/ioc-olympism-in-action-final-american-format-english.pdf

International Olympic Committee. (2015). Sochi 2014 social media metrics: Hot numbers. Cool conversations. All yours. Retrieved from http://www.olympic.org/content/news/media-resources/manual-news/2014/02/28/sochi-2014-social-media-metrics-hot-numbers-cool-conversations-all-yours/

International Skating Union. (2015). ISU World Standings for Single & Pair Skating and Ice Dance. Retrieved from www.isuresults.com/ws/ws/wspairs.htm

Internet Movie Database. (2015). Tessa & Scott. Retrieved from http://www.imdb.com/title/tt3460038

Johnson, R.B., Onwuegbuzie, A.J., & Turner, L.A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research, 1*(2), 112-133.

Kaplanidou, K., & Karadakis, K. (2010). Understanding the legacies of a host Olympic city: The case of the 2010 Vancouver Olympic Games. *Sport Marketing Quarterly, 19*, 110-117.

KidSport Canada. (2013). About KidSport. Retrieved from http://www.kidsportcanada.ca/about-us/

KidSport Canada. (2014). *Helping Our Kids Get Off the Sidelines*. Toronto, ON: Northstar. Retrieved from http://www.kidsportcanada.ca/site/assets/files/10418/cibc_kidsport_report_july_2014_final.pdf

Kietzmann, J., Hermkens, K., McCarthy, I., & Silvestre, B. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54*, 241-251.

Kirk, D. (2005). Physical education, youth sport and lifelong participation: the importance of early learning experiences. *European Physical Education Review, 11*(3), 239-255.

Kirkeby, M. (2009). *The pyramid is history! The real challenges and conflicts between grass-roots and top sport.* Retrieved from http://www.playthegame.org/uploads/media/Mogens_Kirkeby_-_The_pyramid_is_history.pdf

Kolk, A., van Dolen, W., & Vock, M. (2010). Trickle effects of cross-sector social partnerships. *Journal of Business Ethics, 94*, 123-137.

Koivula, N. (1999). Sport participation: Differences in motivation and actual. *Journal of Sport Behavior, 22*(3), 360-380.

Laerd Statistics. (2013). Descriptive and Inferential Statistics. Retrieved from https://statistics.laerd.com/statistical-guides/descriptive-inferential-statistics.php.

Leeds, M. (2005). Economics and Sport. In B. Parkhouse (Ed.), *The Management of Sport* (4th ed.) (pp. 180-195). New York: McGraw-Hill.

Leopkey, B., & Parent, M.M. (2012). The (Neo) institutionalization of legacy and its sustainable governance within the Olympic Movement. *European Sport Management Quarterly, 12*(5), 437-455.

Liamputtong, P. (2009). *Qualitative research methods* (3rd ed.). Melbourne, AU: Oxford University Press.

Liamputtong, P. (2013). *Qualitative research methods* (4th ed.). Melbourne, AU: Oxford University Press.

Liu, R. Y., Parelius, J. M., & Singh, K. (1999). Multivariate analysis by data depth: descriptive statistics, graphics and inference. *The annals of statistics*, *27*(3), 783-858.

Lomax, R. G., & Hahs-Vaughn, D. L. (2013). *An introduction to statistical concepts* (3rd ed.). Routledge.

London24. (2013, June 13). Sport participation falls by 220,000 compared with pre-London 2012, latest figures show. Retrieved from http://www.london24.com/news/olympics-paralympics/olympics-sport/sport_participation_falls_by_220_000_compared_with_pre_london_2012_latest_figures_show_1_2234989?usurv=skip

Mangan, J.A. (2008). Prologue: Guarantees of global goodwill: Post-Olympic legacies – Too many limping white elephants? *The International Journal of the History of Sport*, *25*(14), 1869-1883.

Mansfield, L., Weed, M., & Dowse, S. (2010). Rethinking the role of the values in Olympic/Paralympic legacy planning: using the London 2012 Games to get the nation moving. In R.K. Barney, J. Forsyth, & M. Heine (Eds.), *Rethinking matters Olympic: Investigations into the Socio-Cultural Study of the modern Olympic Movement* (pp. 412-426). London, ON: International Centre for Olympic Studies.

Mellor, J.W. (1999, November 11). Pro-poor growth: The relation between growth in agriculture and poverty reduction. *Prepared for United States Agency for International Development and The Global Bureau's Center for Economic Growth and Agriculture Development.*

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: John Wiley and Sons.

Murray, D. (2014, February 4). The costly distraction that is Vladimir Putin's Sochi Olympics. Canadian Broadcasting Corporation. Retrieved from http://www.cbc.ca/news/world/the-costly-distraction-that-is-vladimir-putin-s-sochi-olympics-1.2521816

Norton, S. (2002). Economic growth and poverty: In search of Trickle-Down. *Cato Journal*, *22*(2), 263-275.

Ontario Ministry of Finance. (2014). *Ontario Population Projections.* Toronto, ON: Author.

Pawlowski, T., Downward, P., & Rasciute, S. (2014). Does national pride from international sporting success contribute to well-being? An international investigation. *Sport Management Review*, *17*(2), 121-132.

Perkins, D. F., Jacobs, J. E., Barber, B. L., & Eccles, J. S. (2004). Childhood and adolescent sports participation as predictors of participation in sports and physical fitness activities during young adulthood. *Youth & Society*, *35*(4), 495-520.

Potwarka, L. R., & Leatherdale, S. T. (2015). The Vancouver 2010 Olympics and leisure-time physical activity rates among youth in Canada: any evidence of a trickle-down effect? *Leisure Studies*, 1-17.

Potwarka, L.R., & McCarville, R. (2010). Exploring the trickle-down effect of the Olympics on activity levels within host nations: Suggestions for research and practice. In C. Anagnostopoulos (Ed.), *International sport: A research synthesis* (pp. 179-190). Athens, GR: Athens Institute for Education and Research.

PricewaterhouseCoopers. (2009). *The Games effect: Research and benchmarking services for the 2010 Olympic and Paralympic Winter Games.* Toronto, ON: Author. Retrieved from http://www.fin.gov.bc.ca/reports/pwc-olympic-report1.pdf

Preuss, H. (2007). The conceptualisation and measurement of mega sport event legacies, *Journal of Sport and Tourism, 12*(3-4), 207-228.

Pringle, R. (2001). Examining justifications for government investment in high performance sport: A critical review essay. *Annals of Leisure Research, 4*(1), 58-75.

Public Health Agency of Canada. (2011). *Obesity in Canada: A joint report from the Public Health Agency of Canada and the Canadian Institute for Health Information.* Toronto, ON: Author.

Ravallion, M., & Datt, G. (2002). Why has economic growth been more pro-poor in some states of India than others? *Journal of Development Economics, 68,* 381-400.

Ritchie, J.R.B. (2000). Turning 16 days into 16 years through Olympic legacies. *Event Management, 6*(11), 155-165.

Scheerder, J., Thomis, M., Vanreusel, B., Lefevre, J., Renson, R.,Vanden Eynde, B., & Beunen, G. (2006). Sport participation among females from adolescence to adulthood: A longitudinal study. *International Review for the Sociology of Sport, 41*(3-4), 413-430.

Scheerder, J., Vanreusel, B., & Taks, M. (2005). Stratification patterns of active sport involvement among adults: Social change and persistence. *International Review of the Sociology of Sport, 40*(2), 139-162.

Simmel, G. (1904). Fashion. *International Quarterly, 10,* 130-150.

Skate Canada. (2010). *Skate Canada's Guide to Long-Term Athlete Development*. Ottawa, ON: Author. Retrieved from http://skatecanada.ca/wp-content/uploads/2014/09/Skate-Canada-LTAD-Model-EN.pdf

Skate Canada. (2015). Lethbridge, Alberta to host 2015 Skate Canada International. Retrieved from www.skatecanada.ca/2014/10/lethbridge-alberta-to-host-2015-skate-canada-international/

Skate Canada. (2015). Thorncliffe Greenview Ice Skating Club Registration Form. Retrieved from http://skatecanada.ca/wp-content/uploads/2015/06/Thorncliffe-Greenview-Ice-SC-Summer-School-Registration.pdf

Skate Canada Central Ontario. (2015). 2015-2016 Club Executive List Form. Retrieved from http://www.skatecanada-centralontario.com/coscubdirectory.htm

Skate Canada Quebec. (2013). Patinage Québec regroupe plus de 244 clubs répartis dans 18 régions respectives. Retrieved from http://www.patinage.qc.ca/pages.asp?id=456

Sky Sports. (2013, June 14). Active People survey shows drop-off in participation in grassroots sport. Retrieved from http://www1.skysports.com/olympics/news/12040/8773313/active-people-survey-shows-drop-off-in-participation-in-grassroots-sport

Smeijsters, H., & Aasgaard, T. (2005). Qualitative case study research. *Music Therapy Research, 2*, 440-457.

Sotiriadou, P., & Shilbury, D. (2009). Australian elite athlete development: and organisational perspective. *Sport Management Review*, *12*(3), 137-148.

Soteriades, E.S., Hadjichristodoulou, C., Kremastinou, J., Chelvatzoglu, F.C., Minogiannis, P.S., & Falagas, M.E. (2006). Health promotion programs related to the Athens 2004 Olympic and Para Olympic Games. *BMC Public Health*, *6*(1), 47.

Sowell, T. (2012). *"Trickle Down" theory and "tax cuts for the rich"*. Stanford, CA: Hoover Institution Press.

Sport Canada. (2013). Sport funding and accountability framework eligibility elements. *Sport Funding and Accountability Framework*. Gatineau, QC: Author. Retrieved from http://www.pch.gc.ca/DAMAssetPub/DAM-sptCan-canSpt/STAGING/texte-text/sFAFVWinterEligibilityGuidance_1388776295261_eng.pdf?WT.contentAuthority=13.0

Stake, R.E. (1978). The case study method in social inquiry. *Educational Researcher*, *7*(2), 5-8.

Stake, R.E. (2005). *Qualitative case studies. The Sage handbook of qualitative research* (3rd ed.). London, UK: Sage.

Stake, R.E. (2008). Qualitative case studies. In N.K. Denzin & Y.S. Lincoln (Eds.), *Strategies of qualitative inquiry* (3rd ed.) (pp. 119-150). Thousand Oaks, CA: Sage.

Statistics Canada. (2013, December). Health profile. Ottawa, ON: Government of Canada. Retrieved from http://www12.statcan.gc.ca/health-sante/82-228/details/page.cfm?Lang=E&Tab=1&Geo1=PR&Code1=01&Geo2=PR&Code2=01&Data=Rate&SearchText=Canada&SearchType=Contains&SearchPR=01&B1=All&Custom=&B2=All&B3=All

Statistics Canada. (2014). Median total income by family type, by province and territory. Retrieved from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil108a-eng.htm

Statistics Canada. (2014). Population by year, by province and territory. Retrieved from http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo02a-eng.htm

Stewart, B., & Nicholson, M. (2004). *The impact of elite sporting success on organised sport participation in Australia.* In: E. De Boever, ed. Innovation through cooperation: proceedings of the European Sport Management Congress, 22–25 September. Ghent: PVLO, 70–71.

Swanborn, P. (2010). *Case study research: What, why and how?* London, UK: Sage.

Thorncliffe Greenview Community Association. (2015). Rental Rates. Retrieved from http://www.tgcacalgary.com/facilities/arena/rental-rates

Tracy, S.J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, community impact*. West Sussex, UK: Wiley-Blackwell.

Truno, E. (1995). Barcelona: City of sport. In M. De Moragas & M. Botela (Eds.), *The keys to success: The social, sporting economic and communications impact of Barcelona '92* (pp. 43-56). Barcelona, ES: Servei de Publications de la Autonoma de Barcelona.

van Bottenburg, M. (2001). *Global games*. Urbana: University of Illinois Press.

van Bottenburg, M. (2002). *Sport for all and elite sport: do they benefit one another?* In Proceedings of the 9th World Sport for All Congress, 'Sport for all and elite sport: Rivals or partners?' Arnhem, NL: Mulier Instituut Centre for Research on Sports in Society.

van Bottenburg, M. (2003). Top-en breedtesport: een siamese tweeling? [Elite sport and sport for all: A Siamese twin]. In: R. Breedveld (Ed.), *Rapportage sport 2003* (pp. 285-312). Den Haag, NL: Sociaal en Cultureel Planbureau.

VanWynsberghe, R., Surborg, S, & Wyly, E. (2013). When the Games come to town: Neoliberalism, mega-events and social inclusion in the Vancouver 2010 Winter Olympic Games. *International Journal of Urban and Regional Research, 37*(6), 2074-2093.

Veal, A.J. (2003). Social impacts of the Sydney Olympics. *Annals of Tourism Research, 30(1)*, 194-215.

Veal, A.J., & Frawley, S. (2009). '*Sport For All' and major sporting events: Trends in sport participation and the Sydney 2000 Olympic Games, the 2003 Rugby World Cup and the Melbourne 2006 Commonwealth Games*. School of Leisure, Sport and Tourism: Working Paper 6, Sydney, AU: University of Technology Sydney.

W Network. (2013). Tessa & Scott. Retrieved from http://www.wnetwork.com/shows/tessa-scott

Weed, M. (2009). *The potential of the demonstration effect to grow and sustain participation in sport*. Canterbury, UK: Centre for Sport, Physical Education and Activity Research, Canterbury Christ Church University.

Weed, M., Coren, E., Fiore, J., Wellard, I., Mansfield, L., Chatziefstathiou, D., & Dowse, S. (2012). Developing a physical activity legacy from the London 2012 Olympic and Paralympic Games: A policy-led systematic review. *Perspectives in Public Health, 132*(2), 75-80.

WinSport Canada Inc. (2014). About Canada Olympic Park. Retrieved from http://www.winsport.ca/aboutwinsportcanada/aboutcop/cop.cfm

WinSport Canada Inc. (2015). Skating. Retrieved from http://www.winsport.ca/activities/skating.cfm

World Bank, The. (2014). Population. Retrieved from http://data.worldbank.org/indicator/SP.POP.TOTL

Yin, R.K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.

Yin, R.K. (2012). *Applications of case study research* (3rd ed.). Thousand Oaks, CA: Sage.

Appendix A

Sample Interview Questions - Athletes

1) Why did you start figure skating?
   a) Can you tell me a bit more about your (family, friend, experience)?
2) How often do you come to the club to skate? Are you competing, in what discipline? At what level?
3) Did you consider joining any other sports instead of figure skating? Are you/have you been a member in other sport clubs?
4) Did you watch the Vancouver 2010 Olympic Winter Games? What sports did you watch?
   a) Why did you watch figure skating?
   b) How about non-Olympic figure skating, do you watch figure skating on television (or attend international competitions in person)?
   c) What are your best memories of the Olympic Winter Games?
   d) How about the figure skating competition from the Vancouver Olympics?
5) Tell me about any thoughts, feelings and/or emotions you had while watching the Vancouver 2010 Olympic Winter Games? Did you "act" on any of these thoughts feelings or emotions? Did they motivate you to behave in any particular way?
6) Did you feel inspired by the Vancouver Games, regardless of the success of Canadian figure skaters? Do you feel like, even if Canada didn't win any medals you would have wanted to be more active?
   a) Did hosting the Vancouver Olympics have an impact on your figure skating participation? Just hosting, regardless of the success of the athletes.
7) Do you have role model(s), a role model(s) in sport? Why do you consider this (these) individual(s) to be your role mode (s)? Do you have a figure skating role model?
   a) How did you come to identify this individual(s) as a role model?
   b) Is there a relationship between your role model (s) and your participation in figure skating? Can you tell me more about this relationship?
8) Has the exposure of Canadian figure skaters on the international stage played a role in influencing you to join figure skating?
   a) Is this what drove you to take up the sport, or would you have picked it up regardless?

Appendix B

Sample Interview Questions - Club Executives/Coaches

1) What is the cost of joining your club – basic entry, intermediate, elite programs at all different levels? Are there additional fees associated with renting the ice time, with paying the coach?
    a) Are these fees additional costs, on top of membership registration, or are they included in the overall membership/incurred by the club?
    b) Can you discuss the accessibility of the membership cost? For example, do costs allow for everyone to try the sport? Could you discuss instances where the costs may have prevented someone from participating?
        i) (Basically, this means do the costs allow for everyone to try out the sport, or are the fees so high where only a certain demographic can join the club)
2) Do you have your club membership data per year since 2003? (If no, what prevents you from having this data?)
    a) Have there been fluctuations in these membership data? If yes, can you explain these fluctuations? (If no, can you explain why there haven't been fluctuations?)
3) The region of Alberta/Northwest Territories/Nunavut has experienced the largest growth in figure skating members over the last 10 years of any region. Why do you think this is?
4) Can you discuss the effect of Canadian athletes in international competitions (e.g., Scott Moir, Tessa Virtue and Patrick Chan) on membership and participation rates in your club?
    a) What kind of role do you feel that the athletes play in promoting the sport?
    b) Do you feel that figure skating requires successful international athletes in order to boost participation, or are the success (or non-success) of international athletes and mass-sport participation two separate things? Why?
5) In addition to membership data, have members been more active since 2010?
    a) By active, I mean, do your members participate more often? For example, I can join a gym, and that would account for an additional member, but I might never show up. Then after New Year's, I would be more active in the gym. So did you notice that your membership base at the time became even more active after the Olympics?
6) What strategies do you think need to be developed to increase membership in your club? In figure skating in general?
7) Did your club develop any strategies following the Vancouver Olympic Winter Games to generate more members?
    a) (If yes, please explain these strategies/If no, please explain why these strategies were not developed?)

8) From your perspective, what are the primary motivations for people to join your club? Do these motivations change over time?

Appendix C

Divide of Skate Canada Regions (Skate Canada, 2014)

Appendix D

Research Participants' Demographics

Participant Name	Category	Gender	Organization	Age	Years Participating
Participant 150306_001	Athlete	Female	Calgary Winter Club	13	7 Years
Participant 150306_002	Coach	Female	Skating Success		
Participant 150306_003	Athlete	Female	Strathmore Skating Club	17	13 Years
Participant 150306_004	Athlete	Female		12	8 Years
Participant 150306_006	Athlete	Female		17	13 Years
Participant 150306_007	Athlete	Female	Strathmore Skating Club	16	8 Years
Participant 150306_008	Athlete	Male	Okotos Skating Club	14	4 Years
Participant 150306_009	Athlete	Male	Crowchild Twin Arena	13	9 Years
Participant 150306_010	Athlete	Male	Huntington Hills	12	11 Years
Participant 150307_001	Athlete	Female	Calalta Figure Skating Club	46	6 Years
Participant 150307_002 & 003	Athlete	Female		14	10 Years
Participant 150307_004	Athlete	Female	Redcliff Skating Club	35	13 Years
Participant 150307_005	Coach	Female	Thorncliffe Greenview Skating Club		13 Years
Participant 150307_006	Coach	Female	Lloydminster Skating Club		4 Years
Participant 150307_007	Athlete	Female	Lloydminster Skating Club	14	7 Years
Participant 150307_008	Administrator	Female	Calalta Figure Skating Club		
Participant 150307_009	Athlete	Female	Camrose Skating Club	16	11 Years
Participant 150307_010 - IF	Athlete	Female	Calalta Figure Skating Club	13	10 Years
Participant 150307_010 - IM	Athlete	Male	Calalta Figure Skating Club	12	8 Years
Participant 150307_011	Administrator	Female	Calalta Figure Skating Club		10 Years
Participant 150307_012	Administrator	Male	Tri Area Skating Club		9 Years
Participant 150307_012	Coach	Female	Wild Rose Skating Club		3 Years
Participant 150307_013	Administrator	Female	Calalta Figure Skating Club		4 Years

Participant 150308_001	Administrator	Female	Skate Alberta/Northwest Territories/Nunavut		12 Years
Participant 150308_002 - I1	Athlete	Female	Lethbridge Skating Club	10	8 Years
Participant 150308_002 - I2	Athlete	Female	Lethbridge Skating Club	7	5 Years
Participant 150308_003 - I1	Athlete	Female	Lethbridge Skating Club	14	10 Years
Participant 150308_003 - I2	Athlete	Female	Lethbridge Skating Club	11	7 Years
Participant 150308_004 - I1	Coach	Female	Thorncliffe Greenview Skating Club		10 Years
Participant 150308_004 - I2	Coach	Female	Thorncliffe Greenview Skating Club		5 Years
Participant 150308_005 - I1	Athlete	Female	Thorncliffe Greenview Skating Club	12	5 Years
Participant 150308_005 - I2	Athlete	Female	Thorncliffe Greenview Skating Club	12	3 Years
Participant 150308_006	Coach	Male	Calalta Figure Skating Club		11 Years
Participant 150309_001	Coach	Male	Calalta Figure Skating Club		9 Years

Appendix E

Brock University Research Ethics Board Approval Certificate

Brock University
Research Ethics Office
Tel: 905-688-5550 ext. 3035
Email: reb@brocku.ca

Social Science Research Ethics Board

Certificate of Ethics Clearance for Human Participant Research

DATE: 2/9/2015

PRINCIPAL INVESTIGATOR: THIBAULT, Lucie - Sport Management

FILE: 14-135 - THIBAULT

TYPE: Masters Thesis/Project STUDENT: Ryan Starr
SUPERVISOR: Lucie Thibault

TITLE: Examining the Trickle-Down Effect of the Vancouver 2010 Olympic Winter Games on Grassroots Sports Participation

ETHICS CLEARANCE GRANTED

Type of Clearance: NEW Expiry Date: 2/29/2016

The Brock University Social Science Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement. Clearance granted from 2/9/2015 to 2/29/2016.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 2/29/2016. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:

a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;
c) New information that may adversely affect the safety of the participants or the conduct of the study;
d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved:

Jan Frijters, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.